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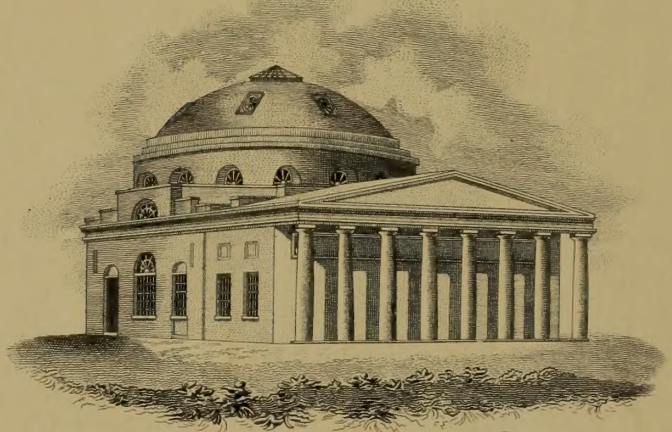

University of Maryland

University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the tables of contents were Richard J. Behles, Historical Librarian/Preservation Officer; María Milagros Pinkas, Metadata Management Librarian; Angela Cochrane and Carol Harling-Henry, Resources Division; Sarah Hovde, Abra Schnur and Megan Wolff, Services Division.

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UNIVERSITY OF MARYLAND

THESES

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[1] 1875 according to Cordell.

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1851-1892; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

Author	Title	Year
Turner, William B.	Cleanliness in the Practice of Medicine and Surgery	1878
Winston, John T.	Intermittent Fever	1878
Elderdice, James L.	The Brian, Its Functions	1878

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UNIVERSITY OF MARYLAND

THESES

1878 (c)

Wade, R. M.	Influence of Mind Upon the Body	15p.
Thornbury Yates, T. B.	Croupous Pneumonia	17p.
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John Winston, J. T.	Intermittent Fever	19p.
James Elderdice, J. L.	The Brain, Its Functions	17p.

1876

A Thesis

Presented to the Faculty of the Maryland
University of Medicine

by

Robert W. Wade of Georgia

for

The Degree of Doctor in Medicine

Subject

Influence of Mind upon the Body

41

WB
18977

Influence of Mind upon Body.

In reasoning as in rearing any superstructure in Mechanics – or equations in mathematics, we first lay the foundation whose well ascertained facts or primary truths, admitted by all – without a refutation being possible – Thus in reasoning, we start with facts admitted by all thinker – to be true – We assume them, in the above enumeration as things to be true – That we have a mind and that we have a body, both performing certain functions in the human frame, intimately connected yet each having a seperate and distinct existence – Were we to contemplate the body and mind as one, and not being seperable, and seeing every act performed

by the one, as only a counterpart of a similar act which could just as easily have been done by the other the whole question would fall to the ground as useless. But the mind or reasoning faculties of man, are as distinct from the body, as the light of the Sun from that of the Moon and Stars although it is intimately and inseparably connected with the body and its movements and thus showing this intimate union, by each being at times affected by the other. The mind itself is immaterial - a principle engrafted to matter, but the brain is the instrument which it employs in all of its operations. Though it is not matter, yet it works by means of matter. In like manner the eye is not sight, but the instrument

of sight. The ear is not hearing, but the organ of hearing
So the brain is not the mind but the organ of the mind.
We see at times the mind rising superior to the in-
firmities of the body, and expressing itself in such a
manner as to show its superior nature, as well as
its superior destiny. Let us watch man and mark
his course, from the time he has been ushered into
this world in all the helplessness of infancy and
while sleeping under a fond mother's smile, or his
waking cries harrow up a responsive feeling in her
bosom, then watch his budding intellect in early
youth, still later in early life, while the dawn of
manhood has but just quickened his perceptions
when he has reached the acme of power and all
the world of animated nature acknowledges

his superiority and then his decline and final mournful exit from the stage of life. Can you find anything in his course from his helplessness in infancy to his fateful exit from the arena of life that can lead you to doubt. We have indisputable proofs that the mind is governed by laws essentially different in nature, from those which control our material fabric. That the body has a certain course to run and that it will run that course in its allotted time we can all see verified in every day life, and that the mind will live beyond that allotted time is not only naturally inferred but Revelation teaches us all we know, with respect to the powers and character of mind, when separate from the body —

Even in a state of vigor do we find the evolutions of the mind exerting a powerful influence in their excess exciting to disease and death. The emotions or passions of the mind are classified into groups as Hope & Despair, Joy & Grief, Calmness & Fear, Pain & Sorrow, Love and Anger &c. We find these passions impressing themselves upon the body in alternations of increase and depression corresponding to each emotion as it presents itself. In early infancy the emotion of pain, exerts its baneful influence, leading to fevers, convulsions, idiocy and even death. And even after the body has reached its maximum of strength, we find that we are alternately swayed by each emotion of the mind, as it predominates. As civilization

has reached its present point of advance, it has also opened more doors or avenues through which the peculiar emotions of the mind or essence may direct itself, so as to affect us pleasurably or painfully. Our minds by incessant culture taking stronger growth, robbing the body, lessening the one and increasing the power of the other. We naturally find ourselves, in these circumstances racked by pains both mental and physical leaving us to suicide as an escape from the self inflicted torture of excessive nervous sensibility. While all this is the case, that same Art, which has so enervated us physically, has given us helps and remedies, by which in a great measure, we can repair and build up the waste. It also

gives us in a great measure, the means of controlling our passions and staying them from their results. Particular emotions, have not only an influence over the whole body, but exerts this influence upon particular organs. The heart most remarkably suffers from such action, thus a sudden shock of grief or joy surprise or fear may cause fainting partial suspension of the heart and even death has ensued, and the expressions "frightened to death" "killed with fear" &c are not always so far out of the way. Palpitations and irregular actions of the heart are very common effects of emotions very commonly mental emotions, affect the secreting organs and especially

the alimentary canal. A piece of very bad news takes away the appetite or impairs the digestion. Fright or anxiety often loosens the bowels or brings on a bilious attack or jaundice. The uterine periodic functions is remarkably subject to moral motives and many of its disorders can be traced to this source. The lower emotions of the mind, and over exercise of its faculties are also exciting causes. Thus the Student who is incessantly burning the midnight oil, acquiring as it has been called "the lean and wasteful learning", and we find him generally pale and emaciated, a prey to nervous excitability, general system enervated and open to attacks of disease

We find in all cases where we have the intellect
concerned in the elucidation of subjects which
do not bring the passions into play, that the
body will perform its functions uninterruptedly
On the other hand the Poet, speculator, Lover
and all whose nervous system has been tortured
and kept upon the stretch for days together
we find a failure and giving away not only
of bodily but mental health also. These are
the persons, who fill our newspaper columns
as suicides and our inebriate and Lunatic
Asylums. Children who are precocious, whose
mental calibre is too large for their frail
bodies, as we frequently see in scrofulous children
do not live long, on account of the too powerful

action of mind upon body.

There is a faculty of the mind that can raise the soul to elysian fields of joy soaring above in the upper ether, flooding it with the unfathomable realities of bliss, or pulling it at other times down to regions of darkness, gloom and despair. We usually term this faculty, "imagination". Through it we have a potent power both in health and disease. It has been believed, that even prior to birth, the mothers' imagination had a wonderful influence upon the child. Through the potent powers of the mind, wonderful cures of disease have been made. By same means Quacks and quackery have been sustained. Anthony Mesmer flourished on the credulous

subtle mind, only through this influence, Animal magnetism holds the same ground - and lastly spiritual rappings, dances and manifestations are hoisted on the public through their imaginations Many instances could be produced in which this emotion has even caused death - Hope the last thing that leaves us. It is the cordial of the mind that diffuses itself through all the pain and trials of this life. It cheers and enlivens the gloom and despair of the sick bed - let the patient lose this blessed panacea of the mind and even physician knows, how difficult it is to restore him - Yet in some diseases we know even this to be the harbinger of evil omen

for it has become a maxim that every hectic breast, hugs to itself the illusive hope of ultimate recovery, but even here the blessing is certain veiling a long and even sure termination with its consolations. It is the silver lining to the gloomy cloud of despair. Joy next comes before us. When we see its accumulated action upon our frames, then we see its baleful power. for it can destroy life as certain as a stroke of lightning. Sophocles the great tragic writer died from the effects of joy. Hume speaks of many aged people dying upon hearing of the restoration of Charles in England. Both of these faculties can be used by the physician in doing good in disease. Dr Rush speaks of several instances in which

it had been the means of restoring to health. used cautiously, but neither in the extreme. Love comes next. Personal attachments are sometimes so strong, as to affect injuriously. Where we have this passion excessive and the mind, "sicklied o'er with the pale cast of thought," we find a variety of diseases breaking in on the system, as from a floodgate, such as mania, consumption &c. Jealousy. "the green eyed monster, that makes the food it feeds on", produces jaundice, dyspepsia and infuriated madness. Anger the most destructive, as well as the most ungentlemanly of the emotions, and has been defined as "short madness". Anger acts on the whole frame, the heart is aroused and tumultu-

the muscles are convulsed, the nervous system vibrates, as if from electric fire appoplexy often wind up the scene. The celebrated Surgeon John Hunter died from a paroxism of Anger. Fretfulness in children is a good sign as a rule during sickness, but fretfulness frequently delays or interrupts convalescence. Fear also exerts a wonderful influence. Persons under a sudden impression of this emotion have died and numerous instances could be produced. Grief has also snapped the cords of life asunder. In one and all of these emotions, we have powerful remedies in disease. It behooves us therefore to study them carefully and apply them for the good of our patients as we may see proper. And

Let us bear always in mind that,

"The world's a room of sickness, where each heart
Knows its own anguish and unrest,
The truest wisdom then, and noblest art
Is his, who skills of comfort best;
Whom, by the softest step and gentlest tone,
Enfeebled spirits own;
And love to raise the languid eye,
When like an angel's wing, they feel him fleeting by."

Baltimore - February - 1875 -

When the bird

[illegible]

[illegible]

the dulness of resonance on percussion

[illegible]

In the stage of [illegible]

[illegible]

[illegible]

[illegible] Pneumonia [illegible]

one than both sides of a lung, one or more lobes of the right lung is [illegible] affected than those of the left.

When the lung of both sides are [in]flamed it is called double pneu[monia] [illegible]

[illegible]

[illegible] commences at night rather abruptly

[illegible] generally accompanied [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] Medication.

Quinine is one of the most valu[able] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] and [illegible],

To [illegible] the [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] the [illegible] [illegible] [illegible].

Resolution will be [illegible] [illegible] and [illegible] [illegible] [illegible] [illegible] of the [illegible] [illegible] sufficiently [illegible].

in their identity. Both belong to the exanthemata a class of fevers of which Cullen gave the following description "Morbi contagiosi, semel tantum in decursu vitae aliquem afficientes; cum febre incipientes: definito tempore apparent phlogoses saepe plures exiguae per cutem sparsae" With some points of his definition as applied to Typhoid we shall have occasion to differ as we proceed. The main features which serve to discriminate these two diseases are as follows. In the 1st place the period of incubation of Typhoid is longer & the premonitory symptoms are better marked, than in Typhus.

The patient in the former having an ill defined sense of lassitude, weariness, ect, which is well expressed by the word "Malaise" for as long sometimes as 2 or 3 weeks before taking to bed. He has also in this period usually some diarhoea which is absent in Typhus. The respective eruptions also give us a well defined mark of distinction, that of Typhoid being papular. It consists of lenticular spots of a bright rose color, disappearing on pressure & slowly reappearing when the pressure is removed. The appear in successive crops, each papule lasting not more than 2 or 3 days; so true is this that in cases which

[illegible] I have noted the

situation of the spots from day to day & in the same time on same day, seen some disappearing, others just coming & others in full bloom. These spots usually begin to show themselves after the 1st week of the disease, though they may be & frequently are, absent from first to last. The mulberry colored rash of Typhus is distinctly hemorrhagic in character, does not disappear on pressure & is mostly confined to the trunk. Again the tongue of the patient may be considered differentially as a diagnostic sign of typhoid being generally small dry glazed, of a pink crimson

[illegible]

ed, the surface [illegible]

[illegible] a day or [illegible] But it is

chiefly the post mortem revela-
tions, which serve to distinguish
this disease from any other. The
characteristic lesions are found
in the small intestine, mainly in
the ileum & involve the glands
of the part, the famed Peyer's
patches. The glands making up
these patches undergo the following
changes: first they become enlarged
and more perceptible than in their
normal state. They then present a
grayish [illegible] surface dotted
with black points [illegible]
to the comparison of them in the [illegible]

similar to that of the beard on a closely shaven chin. Then as the inflammation advances the pustule becomes reddish, the follicles ulcerate & slough away, & are cast off piecemeal so that an irregular jagged ulcer is left, and the appearance of this ulcer with its ragged margin & undermined edges is precisely similar to that of many other ulcers on the surface of the body. The changes are more numerous and more extensive as we travel down the stem towards the calyx, which is what we should expect since the patches are more numerous here & the ulcerations may prove fatal in

several ways; they may perforate the bowel giving rise to a fatal peritonitis, or a branch of the mesenteric artery may be perforated giving rise to an equally fatal hemorrhage or they may by their mere numbers & extent occasion death. When these ulcers heal they leave a permanent cicatrix. The mesenteric glands are also found enlarged & inflamed. This however is only secondary & as Dr Watson happily says, bears no more relation to the intestinal ulcer than does the Bubo in the groin to the sore on the penis. The glands which make up the patches of Peyer are frequently ...

tory & as Dr Carpenter has shown
their function seems to be to e
liminate certain noxious princi
ples from the body. Hence in ty
phoid fever it would seem that
they were particularly concerned
in eliminating the poison produc
ing this disease, & from the un
usual amount of labor thrown
on them results their irritation,
inflamation & final ulceration.
Certainly we know that when
various substances are taken into
the body, they seek to escape by one
or the other of the various emunc
tories & there would seem to be no
more reason why the typhoid
poison should not escape in this

may thus that suppuration should
escape by the kidneys & lungs by
the bronchial glands. The spleen
is commonly found enlarged &
if the patient has been sick
long time more or less hypostatic
congestion will be found in
the lungs. It has been my mis-
fortune only to have seen the au-
topsies on 2 patients who died
of this disease; in one of them
the disease for about 2 weeks from
the ulcer was full of worms
the surface of them stained yel-
low from contact with the watery
discharge which found exit from
during life. No perforation was
found. In the other, the bowel

[illegible]

ted, but in one place, perforations had taken place & the evidences of peritonitis were found. In both cases the spleen was much enlarged and soft & the glands of the mesentery swollen. The fever is usually ushered in with a chill which may be well marked or so slight that the patient will scarcely notice it. The countenance as the disease advances becomes anxious & disturbed; there will sometimes be a painful expression even though the patient may be altogether unconscious or not conscious of any real pain. Pain in the head is an almost constant symp-

tom, particularly in the beginning; not acute but dull & heavy & frequently extends down the back. The diarrhoea is generally an early symptom, though in some cases it is delayed until the 2nd or 3rd week of the disease & is of much importance in regard to the treatment. The stools are frequent very fetid, of an alkaline reaction, with the consistency of pea soup, of a yellow ochrey color, & frequently in the more severe cases flow from the patient without his knowledge. The eruption as I have said may be absent, and in fact we do not find it developed in more than 2/3 of the cases, & its

presence does not in any way alter the prognosis. As the disease advances, so does the diarrhoea, the patient having 4 or more stools daily. The delirium which supervenes is of the low muttering kind, coming on usually at night & the patient continually shows a desire to get out of bed so that it becomes necessary to continually watch them. The pressure so made on the region of the iléo caecal valve a sensation as of a rolling of air & water is communicated to the fingers & sometimes a loud gurgling will even be heard. The belly is distended & tympanitic, & has a

ular shape, thus arising from the fact that the flatus occupies the ascending transverse & descending colon. Hemorrhage from the bowels may take place either from an ulcer perforating a blood vessel, or from changes in the blood itself in connection with depression of the vital powers; being passive in character. We see an instance of this tendency to hemorrhage, in the epistaxis frequently severe in character which often occurs early in the attack. In most cases there is much cough & expectoration which greatly aggravates the patient's condition & on auscultation we have the sign-

of a [illegible]

The tongue becomes brown, black & dry so that it becomes necessary to moisten the mouth before medicine can be swallowed. this becomes smooth & red from its epithelial layer being thrown off & looks as if it were covered with gold beaters skin. Abundant sordes collects upon the gums & teeth & from undergoing decomposition, there is a very penetrating & disagreeable smell about the patient. The pulse does not bear any constant ratio with the temp, during the first week running up to 100 or 120 and is very variable. It has also a dicrotic beat particularly in the more severe cases; a second wave following the first and [illegible]

[illegible] marked. This condition
of pulse which occurs is not or-
dinarily confined to Typhoid fever
[illegible] disease conditions
[illegible] the [illegible]
[illegible] of the thermometer. The
course of the temp. may be almost
considered pathognomonic of Ty-
phoid. During the first week
it rises [illegible] every day in
a very peculiar manner. It will
rise [illegible] 3° by the evening of the
1st day [illegible] 2° by morning [illegible]
again in the evening higher than
on the preceding day [illegible]
fall [illegible] in the morning [illegible]
than, according to some authors
we may [illegible]
the temp. on the first [illegible]

[illegible] evenings is alike. After
the 3rd or 4th [illegible] the tem. contin-
ues pretty uniform enough many
rising in the evening & falling in
the morning. In some cases, the
tem. record of which I have kept,
this regular rise and fall was
so well marked that the tracings
on the paper took like the teeth of
a saw. Even at the end of the 3rd
week when defervescence usually
takes place, there is no sudden
fall but a gradual decline the e-
vening exacerbations being distinc-
ly marked for some time. This
course of the tem. will always
serve to distinguish it from any
of the forms of malarial fever
some of which it is apt to be mis-

[illegible] is
usually by asthenia. With regard
to the causes of this disease 2 sets
of opinions are held, some main-
taining that it is a contagious
disease & can only arise from
contagion; while others hold that
although contagious it may arise
from other causes. Certainly, Ty-
phoid fever is contagious, this
fact appears to be amply sus-
tantiated, but the contagious mat-
ter appears to be disseminated
not by exhalations from the
skin lungs, but from the stools.
From this appears to arise the
fact, that the fever, in the coun-
try where the dejections are emp-
tied on the convenient dung heap

more apt to spread to ~~any~~ other members of the family, than in the city where they are thrown into the sewer and at once carried off. Whether this is the explanation of the fact or not, the fact remains that all the cases we have had in the hospital here in the past year, although the patients were in no manner isolated, it has not spread in a single instance. On the other hand, in the country unless the dejecta are disinfected & buried or are taken a safe distance from the house it is common to see several members of the family attacked. Where the

[illegible]

the germs may be carried by [illegible] & escaping by [illegible] traps, into houses along the line may set up new foci of disease. In the same way by the contents of the sewers escaping into wells of drinking water the disease may be spread by the use of the water. There are several well authenticated instances reported in which it seems to have spread in this way. Many other instances, more or less plausible, of its being carried about by very curious routes have been adduced by those holding the opinion that the disease spreads only by contagion & they make a very strong argument. In

table that cases have arisen in places remote from travel & where by no possible way could those attacked have been exposed to contagion. In a number of cases occurring during the last summer in the practice of my father in Bath County in but 2 or 3 cases could the disease be traced to contagion. Several outbreaks of the disease have occurred there in recent years. The country is high and dry & but for the miserable condition of Hygiene, common to all the dwellings of the lower classes in the country would be exceptionally healthy. The places in general where the first cases in each out-

[illegible] noticeable in their [illegible]
There is always the open privy
placed conveniently near the house,
in which [illegible]
[illegible]
[illegible]
other than those [illegible] the
[illegible] on the [illegible]
In each yard, the common recep-
tacle of all the suds from wash-
ing clothes, dish water, and all
manner of filth. Their dwellings
in which from November until
May the air is but that of the
black hole of Calcutta a little
more diluted. Yet these people
when they get sick look on their
sickness as a dispensation of the

idence. The Respiratory diseases considerable attention, though our space will not admit of a particular mention. Certainly Typhoid fever appears to be a filth disease fostered if not engendered by filth all permeating & decomposing vegetable and animal remains & under properly enforced Hygienic laws should be as utterly unknown as small pox would be if Jenner's discovery were fully enforced. We do not doubt but that Dr Richardson would find some very material obstacles in the way of practicing medicine in the city & still we do not think he would have any Typhoid to treat. With regard to the treatment; the expect-

ment, that is, the treating of exist-
ing conditions, watching for & obvi-
ating the tendency toward death
in this or that manner, appears
to be the most rational & certainly
has been the most successful. Clean-
liness is a prime requisite. The pa-
tient should be placed in a
large airy apartment in which
there is plenty of sunshine, the
temperature of the room ranging
from 60. 65°. His bed should be
comfortable, lightly covered and
the sheets changed as often as
they become slightly soiled. Spong-
ing the body off with acidula-
ted water is often very grateful
to the patient from lessening
the tem. by the evaporation and of

assists in keeping his person
clean. The sordes collecting on
his teeth & gums should be kept
wiped off, and his mouth wash-
ed out daily with some mildly
astringent wash, a wash of Ser-
manganate of Potash answers
admirably. In regard to the gi-
ving of purgatives in the begining
of the disease if the bowels have not
been moved for some time, there is
much difference of opinion. Un-
derlich & several other eminent au-
thorities affirm that the disease
may sometimes be cut short during
the first week by several large
doses of Calomel. Others of equal
repute withhold purgatives alto-
gether from the fear of aggravating

the diarrhoea which is almost sure to set in & reduce in very rare cases that purgatives may seem to be needed. When the bowels are costive in the beginning however it would seem to us that a single dose of Calomel to clear out the primae viae would do no harm. When the diarrhoea has set in and is violent it is best controlled by some of the vegetable astringents the chalk mixture with Kino Krameria or any of the class will generally suffice. Two or three grains of Dover's powder with Bismuth repeated at intervals of 3 or 4 hours answers well as do Alcohol in some form or other

[illegible]

[illegible] those low states of the system which we constantly find, denoted by a dry brown tongue, rapid & feeble pulse, [illegible] subsultus, the muttering delirium & greatly increased heat its effects are almost magical. The pulse will gain in strength & [illegible], the tongue becomes more moist, and the delirium which in these cases most often results from malnutrition [illegible] abate entirely. In these cases [illegible] is a true food, a food too that is often the only kind that can be assimilated, at the time that the [illegible] consumption of tissue, as shown [illegible] the increased [illegible] & the increased excretion of urea, is going

[illegible] supplying a [illegible]

[illegible] the oxygen. [illegible] excessive waste is prevented & the temperature [illegible] & frequently repeated [illegible] with milk or some other easily digested liquid food. Of late years the antipyretic treatment has come prominently forward and a most rational [illegible] Since [illegible] that increased heat & increased production [illegible] increased waste & enormous expenditure of force go hand in hand, what can be more rational than the antipyretic [illegible] the [illegible] & in the [illegible]

... from ... this ...

temperature can be lowered by the ... means of Niemeyer, the wet pack or cold bath, or what seems best, in ... opinion the free bold use of Quinine. This agent should be given in doses of from 10 - 20 grns twice or thrice a day, or in larger doses if these will not effect the purpose for which given. ... it should make the patients head ring ... it can do no harm & in these large doses it seems almost to exercise a controlling influence over the disease. The patient demands the closest watching, the state of his bladder must be carefully inquired into, and if the urine be retained he must be catheterised to prevent the urine from dribbling &

[illegible]

and the patient must be kept
clean. Opium is of benefit not
only when perforation has taken
place in which case it is the main
remedy but in allaying the cough
which is often distressing to the
patient & in quieting delirium. It
should be given in extremely small
doses say 1/32 gr of Morphia, frequently
repeated and its effects carefully
watched, as it is a remedy also
powerful for evil if given unguard
edly. When the tongue is dry, peel
ing off in flakes leaving a raw
surface, we have a special indication
for the use of turpentine. This not
only acts as a stimulant to the vaso
motor nerves, but in [illegible]

[illegible]

The intestinal hemorrhage may [illegible] to a great extent be controlled [illegible] [illegible] should be given in [illegible] in doses of 10 - 20 grns. Ergot is also a valuable remedy in controlling bleeding. The convalescence is slow & tedious with a great tendency to relapses.

On reading over this valuable contribution to medical science we can only find 2 things, which should specially recommend it. One is that it contains no quotation from Fennyson & the other is that nothing is said about the recent great advances in medical science. Possibly a third may be found in the fact, that this effort is based

in what we know of the disease from individual observation. In the hope that the intelligent member of the faculty who may chance to read this will recognise & appreciate these cardinal virtues, we leave our maiden effort to its fate.

A. T. Councilman

A
Treatise on
Phthisis Pulmonalis
by
J. F. Turner
of
Maryland.

By Consumption or Phthisis are understood in Pathology those diseases characterized by the gradual destruction of life with constantly increasing emaciation and from which recovery is exceptional. Of these Pulmonary Consumption is by far the most common.

This disease has existed among men from the earliest record of history; though whether as prevalent as now is unknown. At present two sevenths of all the deaths are attributed to this dire scourge.

The symptoms were plainly

and unmistakably described by Hippocrates and other physicians of antiquity, though the relation of tubercle to the disease in question seemed not to be thought of as it was variously ascribed by different writers to suppuration of the lungs arising from inflammation or extravasation of blood: & some thought it might occur as a circumscribed collection of pus or a diffuse infiltration and run either an acute or chronic course. Franciscus Deleboe Sylvius seems to have been the first to recognize along with these inflamma-

and ulcerations the epidemic of nodes from the breaking down of which cavities arise. He connected these nodes with the Pulmonary Glands, and thought that in consequence of a hereditary predisposition these glands enlarged and finally were converted into suppurating cavities. Various other writers have described lungs containing besides cavities, countless small tubercles. Magnetus in 1700 described the tubercles found in the lungs, liver, spleen, kidneys &c resembling millet seeds, and also described what certainly

was a miliary tuberculosis.
Louis thought that tubercu-
lous matter was deposited under
two primary forms - that of isolated bod-
ies and that of infiltration, each
of these being capable of several
subdivisions. He denied the
inflammatory nature of tuber-
culous matter: and especially
that Pneumonia could pass
into Tuberculosis - though he
thought it might hasten the
transformation of already exist-
ing tubercle.

Etiology.

Every thing which impairs the
normal nutrition of the body,

various parts of the blood, or deficiency the nervous system has been alleged to be the cause of Consumption; there are how-ever generally concurrent or pre-cedent conditions which are necessary to produce this many partly general & partly local. Under the head of general con-ditions would come the consti-tutional anomalies, in many cases having been manifest from childhood in the form of scrofula, or a congenital taint as yet not having been disclosed by symptoms. That Phthisis is hereditary

seems very possible if we take into consideration the transmission of the external forms and mental qualities through generations; and why should this not be the case with conditions producing a disposition to certain disease. In the former case we do not require the comparison to be made between immediately successive generations, and why should we be more discriminating in regard to the inheritability of disease? Frequently no doubt the disease is congenital, though [illegible] not recognized until after

Phthisis [illegible] generally [illegible] or
[illegible] in the [illegible] of the [illegible]
it is evident that the condi-
tion in this locality must be
pecuniary favorable for the pro-
duction of the changes which
lead to this [illegible], [illegible]
[illegible] the conformation of the
chest occupies a prominent
part — the distribution of the
blood to these parts [illegible] cer-
tain [illegible] of [illegible].
Among other conditions favorable
for the development of [illegible]
[illegible] may be mentioned Bad
Air — Improper Food — Climate,
Faulty carriage of the body

Phthisis Pulmonalis is usually a chronic disease, the most of its fatal form, that runs an exhausting Consumption lasting several months to run its course.

-Symptoms-

The Earlier symptoms of this disease are generally very indefinite and the diagnosis is based rather upon apprehension than definite knowledge. There are generally speaking 2 classes of cases to be considered.

In the first class there have generally existed before the beginning of the disease manifest - loss of appetite and indi-

cations of a general derangement of nutrition incurred at length by the cough, expectoration &c. in the latter the general symptoms of the disease make their appearance without however attracting the attention of the patient particularly until the appearance of night-sweats - pallor - emaciation and febrile symptoms.
In the majority of cases at this stage a thoracic examination will reveal the existence of lesions at the apex of one or other lung, or if not, the persistent febrile symptoms may excite

sufficiency of vitality. Very rarely however the pulmonary affection is disguised by the presence of digestive derangements existing for some time before any thoracic disease is discoverable. On physical examination of such patients by inspection we are struck with the leanness of the chest - the hollowness beneath the clavicles - and with the exaggeration of the supra & infraspinatus fossae - the prominence of the scapulae - the flattened appearance of the thorax - and its comparatively slight participation in respiration

the upper part of the chest on one or both sides moving but slightly on deep inspiration.
By Auscultation - there will be heard prolonged harsh expiration & after coughing a few crackling rales at the apex of one or other lung - the inspiratory murmur while never prolonged becomes harsh, & jerking respiration is easily distinguished.
By Percussion - a moderate dullness is apparent over the affected portion both anteriorly and posteriorly the percussion note varying as a matter of course with the extent of the lesion

so that in different cases of phthisis we may meet with all possible variations in pitch. More or less expectoration is always present the sputa consisting of small yellowish masses contain-ing white streaks, and of masses of more solid consistence gradu-ally sinking in water. Such pa-tients by following carefully the directions laid down for their guidance may temporarily im-prove but sooner or later the symptoms return intensified in character; sharp stabbing pains are now complained of in the affected side — the dullness in-

comes more extensive - more abun-
dant crackling rales are now
heard on auscultation - and after
the lapse of a variable time becomes
more amphoric and the percus-
sion sound clearer & more tym-
panitic - the fever reappears and
maintains its ground - the emac-
ciation gradually becomes more
extreme - the expectoration increases
and contains solid irregularly
spherical lumps - the night sweats
become more profuse - the patient
sinks into a state of extreme
exhaustion and death gently
closes the scene. Thus is tempt
to an end the simplest form

of pulmonary consumption. The most common form however is accompanied by the symptoms dependent upon the extension of the disease to other organs, as soreness and sense of burning pain in the bowels dependent on the implication of that organ – diarrhoea – by manifest and alarming sensitiveness of the abdomen on pressure dependent upon the disease having seized upon the intestinal canal. In Western Florida the disease is confined exclusively to the lungs – there is very rarely any amelioration of the symptoms and death ...

the disease.

-Prognosis-

It is evident from what has been already said that the prognosis must necessarily be greatly dependent in a great measure on the variety of the disease - the parentage - constitution - conformation of the chest - age &c.

If the physical signs & [illegible] of the disease indicate a simple chronic inflammation it is much more favorable in the prognosis.

If none of the ancestors have been consumptives - if the patient has passed his youth without any of the chronic derangements - of the

[illegible]
[illegible]
[illegible] that a healthy wet nurse should
be procured & the mother refrain en-
tirely from nursing her infant.
[illegible] every thing else however the
child [illegible]
as much as possible. At the time
of dentition if cows milk be sub-
stituted for that of the mother
it should be diluted with good
broth instead of water. If the
child [illegible]
[illegible]
to [illegible] the quantity of [illegible]
Cough—Measles—and Scarlet Fever—
[illegible]

consumption; or by inducing sus-
ceptibility [illegible] for subse-
quent infection. Attention should
therefore be particularly directed
to any respiratory complications
which have occurred, and to the
complete restoration of the res-
piration and condition of the chest
should these have been impaired.
The child should at all times
be taught to maintain that of
right position of the shoulders &
upper part of the body which is
so indispensable to the proper
expansion of the chest. Exercise
especially directed to the respira-
tory muscles is also important.

The cultivation of the voice in singing is useful - some high authorities maintaining that they have never seen a trained vocalist suffering from phthisis - out door exercise of all kinds and special exercises which tend to draw the shoulders backward thus expanding the chest. For persons predisposed to phthisis all occupations which involve a specially sedentary life should be carefully avoided. Persons having a scrofulous habit should receive especial attention and the extirpation of enlarged glands which do not yield to consti-

tutional treatment has been
practised with success. When
however we have to deal with a
case of phthisis, where the indi-
cations to be met are different
to the tubercles and the tubercu-
lous scrofulous inflammatory pro-
ducts accompanying it ordinari-
ly caseous metamorphosis; and
the extension of the disease is
prevented by the formation of ci-
catricial tissue around existing
cavities, plainly the indications
are to promote caseous transfor-
mation and retain the condi-
tions under which normal con-
nective tissue inflammation

may supplant the tuberculous;
also to reduce the fever the main
cause of the Emaciation and
wasting. The direct spraying of
the respiratory organs with alka-
line solutions has been used in
some cases with such success
as to cause the disappearance of
the crackling rales and at the
outset of this treatment with
increased expectoration. Inha-
lations of Lime and Carbolic
Acid have been used with vary-
ing success though in the ma-
jority of instances have afforded
some relief. The necessity of
pure air and uniform temper-

ative should be insisted upon in the treatment as rigidly as in the preceding case.

Cod Liver Oil is a generally acknowledged remedy of much value acting by improving the nutrition of the system generally, but especially that of the affected blood vessels and lymphatics; as their endothelium forms the starting point for the microscopic miliary tubercle; and thus limits the formative process of the tuberculous inflammation. The oleaginous food of easy digestion, by having the same tendency is likewise useful.

The Preparations of Iron in combination with Arsenic are often very serviceable in aiding the nutrition. Alcohol has been highly lauded by some and whilst it does not raise the temperature has not been known to limit the destructive process going on in the lungs: hence for obvious reasons it should be dispensed with as far as possible. As regards diet it should be of the most nutritious and easily assimilated kind - "Niemeyer" speaks favorably of the "milk cure" which consists in the patient drinking large quantities of milk daily.

By carrying out the foregoing in-
dications and facilitating the ex-
pectoration of broken down lung
products we shall succeed
in promoting the formation of a
cicatrix.

"Indication Symptomatic"

The fever is the symptom which
should receive special attention
and nothing answers better than
reduction of temperature than the
free use of quinine with tonics,
& mild diet such as milk stewed
fruits & a little bread, but as the
fever declines we must give more
nourishing food with the milk—
as Eggs, beef tea &c.

If the laryngeal affection so fre-
quently present in Phthisis is
simply of a catarrhal charac-
ter inhalations of a spray impregnated with
some mild astringent will be
found useful and if ulceration
exist they may be touched with
a little pure Carbolic Acid. The
annoying & debilitating night
sweats may frequently be reliev-
ed by the administration of some
of the mineral acids of which
the Aromatic Sulphuric is proba-
bly the best. Sulph. Atropia in do-
ses of 1/60 of a gr is one of the most
certain remedies at our command.
The Germans recommend with the

more vigorous patient cold ablutions with the addition of some spirits to the water.

If haemoptysis occur it is best relieved by Ice. Lead & Ergot. The Acetate of Lead when there is any febrile disturbance being possibly the best on account of its sedative as well as astringent action. The combination of Opium with Acetate of Lead by its tending to allay the cough & irritability of the stomach so common and attendant upon this disease increases very much its efficiency.

The dyspepsia which so frequently accompanies phthisis should be treated

as far as possible as also it comes into similarity of the disease, though frequently it baffles all our efforts at control.

The diarrhoea when occurring is equally difficult to manage, & this is explained by the frequent ulcerations found at autopsy. Regulation of the food & drink with the aid of vegetable astringents most frequently however afford much relief.

A Thesis

on

Morphia

Submitted to

The Faculty of University of Maryland.

By

George Williams Carter

Of

Virginia.

Session 1877-78

Morphia.

Morphia is an alcaloid of O-
pium. Opium is the concrete
juice of the unripe capsules of
Papaver Somniferum. Of this plant
there are two varieties, the white
poppy and the black poppy.
The former is generally considered
the proper opium plant-
All parts of the poppy contain
an opague narcotic juice, but
it is in the capsule that the vir-
tues of the plant most abound.
The seeds are nearly destitute of nar
cotic properties and we are told
that the Romans used them in
the preparation of various dain-
ties etc. The seeds also contain an
oil which is employed for culi-

navy and pharmaceutic purposes, in painting and, in various ways, as a substitute for olive oil.
The Papaver Somniferum is a native of Asia and Southern Europe - It is largely cultivated in India, Persia, Asiatic Turkey and Northern France. It is probable that ere long it will be largely cultivated in The United States, as the poppy grown in the colder regions is richer in morphia than that grown in the warmer regions: this is proved by the fact that while Smyrna opium yields about twelve per cent of morphia, that obtained from Northern France yields from twenty to twenty-

four per cent.

The poppy is annual and has a round, smooth and erect stem, usually rising two or three feet in height. The leaves are large, variously lobed and toothed and are alternately placed on the stem which they closely embrace. The flowers are very large and are of a silver-gray colour. In India, they appear in february - in Europe, not before June, July or August.

The capsule is smooth, rounded and ovate: it is from two to four inches in diameter and contains a number of small white seeds - The seeds of the black poppy are black or brownish in colour and it's flowers are

violet-coloured or red.
The process for obtaining opium is the following- Soon after the fall of the flower, horizontal incisions are made in the capsule, care being taken not to penetrate its cavity- a white juice exudes, appearing in the form of tears upon the Edges of the incisions. They are left in this state for twenty-four hours when the juice is scraped off by large blunt knives- it now resembles an adhesive jelly and it is put into small vessels, beaten and moistened with saliva and when of a proper consistence is wrapped in leaves and sent into the market.
The commerce of the United States is sup

plied with opium almost exclusively from Asiatic Turkey and is known in the market as Smyrna or Turkey opium. Good Smyrna opium should yield from nine to fourteen per cent of Morphia. Opium contains a great variety of chemical constituents, the most important of which is the alkaloid, Morphia. Sertürner, an apothecary at Eimbeck, in Hanover, deserves the credit of its discovery. In 1817, he announced the existence of a saline compound in opium, consisting of a peculiar alkaline principle united with a peculiar acid. To the alkaloid, to which he attributed the narcotic powers of opium, he gave the name, Morphium, which

was subsequently changed to Morphia - He called the acid, meconic, from the Greek (μηκων) name of the poppy - His statements were confirmed by subsequent observers and the terms, by which he designated these principles, have remained unchanged, so far, and probably always will. In addition to morphia, opium contains numerous other alkaloids and peculiar principles which it is needless to mention or describe here: suffice it to say, that Morphia is, by far, the most important and upon it the narcotic properties of opium essentially depend. Morphia exists in opium chiefly combined with

meconic acid, in the form of a meconate of morphia - It exists, also, to a certain extent, as a sulphate.
Various processes for the preparation of Morphia have been employed.
In most of them, the morphia is extracted from opium by maceration with water, either pure or acidulated - it is then precipitated by ammonia and afterwards is purified by alcohol or by repeated solution in a dilute acid and precipitation. The process of the U.S. Pharmacopoeia is substantially as follows - The opium is coarsely powdered or finely sliced - It is then macerated in successive portions of distilled water, the maceration being assisted

ed by kneading, and then strained - alcohol and water of ammonia are then added - The alcohol should be added first - then alcohol and water of ammonia together - The ammonia solution decomposes the meconate of Morphia, seizing the acid and precipitating the alkaloid while the alcohol dissolves the colouring matter as soon as it is separated by the ammonia and thus prevents it from being thrown down along with the Morphia. The reason for adding the ammonia in separate portions is that, by this means, the morphia being more slowly disengaged, can be more completely freed from its impurities

by the alcohol than if the whole were liberated, at once - The liquid should now be set aside that crystals may form. To purify these, boil them in alcohol until they dissolve, filter the solution while hot through animal charcoal and set aside to crystallize. In the above process, care is necessary that the ammonia be not in excess, or it will dissolve the morphia, in some degree - enough to saturate the acid is all that is required - Water is a better solvent than the acids as the latter dissolve more of the narcotina and hence give a more impure product

Morphia, obtained according to the

above process always contains a considerable proportion of Narcotina - this is easily separated by the action of ether which dissolves the narcotina and leaves the Morphia or by the action of distilled Vinegar or dilute acetic acid which dissolves the Morphia and leaves the narcotina, the morphia being obtained from the acetic solution by saturating the acid with Ammonia. Morphia occurs in small, colourless shining crystals - it is colourless, but very bitter - when heated in the open air, it burns with a bright flame and at a red heat is wholly dissipated. It is nearly insoluble in

water and ether - It partially soluble in cold and freely soluble in boiling alcohol. Both morphia and its salts are insoluble in Chloroform.

Tests - I. Nitric acid strikes with morphia and its salts, a rich orange-red colour, slowly fading to yellow - the same colour is produced by brucia and impure strychnia and, hence, it cannot be relied on, alone.

II. When added to a solution of Iodic acid, morphia and its salts redden the liquid and set Iodine free - this test is not conclusive as various other organic substances act similarly: but it has been found that the color produced by these substances

is removed by ammonia, while the redness produced by morphia is greatly intensified by the addition of Ammonia - This test thus modified will detect one part of Morphia in one thousand parts of a liquid holding it in solution.

III. The Chloride or Persulphate of Iron strikes with morphia and its salts a deep blue color.

IV. Morphia and its salts give an orange color with Chlorine water.

V. The Perchloride of gold precipitates morphia first yellow, then bluish and then violet.

VI. A solution of the acetate or Sulphate of Morphia containing 1 part of the

salt in 100 will precipitate Silver from the nitrate of Silver (solution).
From the insolubility of Morphia, its salts are preferred for medicinal use. Those chiefly used are the Sulphate, Acetate and Muriate — They are made by saturating the alkaloid with sulphuric, acetic and muriatic acids respectively. These salts are all freely soluble in water and alcohol, their taste is bitter and they produce analogous medicinal effects, the sulphate being the one most largely used.
The salts of Morphia are considered less apt to produce headache and nausea than opium and are peculiarly well adapted to the Hypodermic and Eu-

dermic modes of application -
The dose by mouth is gr 1/6 - 1/4 -
Magendie's solution - Sulph Morphiae
grs XVI to water f℥i - is used hypoder
mically - of this six to ten minims
may be injected at a time, six min
ims being equal to gr 1/5 - and ten min
ims representing gr 1/3.
Apo-morphia a recently discovered
alkaloid possesses emetic proper-
ties - It is claimed to act promptly
and without nausea - Is made by the
action of strong acids or Chloride of
Zinc on Morphia - Grain 1/4 by mouth
or gr 1/10 - 1/8 hypodermically will cause
emesis - It is also claimed to be ex-
pectorant in small doses.

In cases of poisoning by morphia no local lesions have been found. The force of the medicine seems to be entirely directed to the nervous system. It kills by paralyzing the medulla and thus causing a suspension of respiration. It has no chemical antidote. Tannic acid is not a reliable antidote, as the compounds which it forms with morphia are not entirely insoluble, as has been claimed and hence they would prove highly deleterious to the economy.
Nor can the alkalies be relied upon as antidotes - since, though they precipitate morphia from its soluble combination, morphia, thus

precipitated, would not be wholly insoluble in the stomach.
The signs of fatal narcotism are— a cool, clammy skin and cold extremities— a pallid countenance with a feeble and thread-like pulse— contracted pupils— a slow, interrupted, gasping respiration and a death-like torpor.
When an overdose has been taken the proper treatment is to evacuate the stomach by the stomach-pump or, if this be not convenient, by the more active Emetics, as Cupri Sulphas grs 5-10 or Zinci Sulphas grs 20-30— These large doses are given on account of the torpor

of the stomach caused by the excessive amount of the drug.
The depressing emetics should always be avoided. The operation of the emetic should be promoted by the free use of warm drinks, by irritating the fauces with a feather, by keeping the patient in motion, and by dashing cold water upon the head, if the insusceptibility to the emetic be great.
After the evacuation of the poison stimulants are urgently indicated. Those best suited to the case are such diffusible stimuli as Carbonate of Ammonia, aromatic spirits of ammonia and strong

coffee. Of course these must not be so blindly & boldly given as to produce the sedative effects of these remedies which would only increase the distress and danger of the patient. Externally, sinapisms and stimulating frictions may be applied. The patient should be kept aware and made to walk as long as possible and nothing should be left untried by which he might be aroused from his lethargy. Of late years, Belladonna has been found to be a powerful physiological antidote in poisoning by morphia - atropia, its active principle, is given

hypodermically, in minute doses as gr 1/100-gr 1/95 - It must be carefully watched lest the depressing effects of Belladonna be added to those of Morphia and the case be only aggravated. If these measures fail, artificial respiration may be employed, as a last resort. The smallest fatal dose of Morphia on record is gr 1/2.

Physiological Effects - Opium has the widest range of therapeutic application of all the articles of the Materia Medica - as a rule, Morphia may be employed wherever opium is indicated and hence the salts of morphia are applicable to all

cases where it is desired to relieve pain, quiet restlessness, induce sleep or allay nervous irritation of any kind. The salts of Morphia are less disposed to constipate or to leave behind them headache, nausea or other unpleasant effects, than opium.

Where the internal use of opium is forbidden, the salts of Morphia sprinkled upon a blistered surface, denuded of the cuticle, will act as happily as when taken by the mouth. The same effect may be obtained much more promptly by the hypodermic method. Morphia is contraindicated by strong

determination of blood to the brain, by inflammation of the brain and by idiosyncrasy.

Special Uses - In typhoid fever and in other fevers attended by symptoms of cerebral depression, as low muttering delirium, etc., Morphia, if given in stimulant doses and if care be taken that its narcotic effects are not produced, will generally remove or alleviate the cerebral symptoms - a good form of administration is ℞ Morphiae sulph gr i - aquae ℥iv - Sig ℥j every five minutes till gr 1/8 be given and then wait a half hour for effects. In the violent delirium of typhoid

fever we combine with morphia aconite or minute doses of Tartar Emetic great care always being taken lest too great sedation be produced.

Opium was formerly thought to be antagonistical to the antiphlogistic plan of treatment, but, now, we know the reverse to be true— It is decidedly antiphlogistic and is both palliative and curative. It is curative because I. It relieves pain and diminishes the constitutional disturbance which inflammations generally occasion—

II. It arrests or diminishes oxydation— For these reasons, the salts

of Morphia are of very great value in Pneumonia, in both the first and second stages, but its use is contraindicated when there is an accumulation of mucous in the bronchial tubes - In acute Pleurisy, they are similarly used - and with equally good results - Surely no one would deny its curative action in the two diseases just mentioned.

In the treatment of acute Peritonitis our main reliance must be upon opiates - In this disease the system is more tolerant of them than in any other and enormous quantities have been and are daily being given for its relief.

These salts have been claimed to be of great service in relieving the cough of pulmonary affections, but their value here is questionable—
They are apt to do harm by inducing debilitating perspirations and, consequently, it is better to use some other remedy, in these cases.
Chloral Hydrate may be preferably employed.
In the treatment of the nervous, colliquative diarrhoea, which are so prevalent in the summer months, Morphia combined with Sugar of lead is most useful—a good Combination is ℞ Plumbi Acetatis ℈i, Morphiae Acetatis gri—Camphorae gr X—Make pills

No. 10 - Sig - one to be taken pro re nata.
In Mania a potu, morphia is useful in promoting sleep - It acts better when combined with Chloral Hydrate - Sulph. Morphiae gr 1/8 - 1/4 and Chloral Hydrate grs 15 - 20 may be given at a time and generally with very good effects.
These are only a few of the uses of morphia - It is needless to mention them all, as a volume might be written upon its various therapeutic applications.
From its power of relieving pain and inducing sleep, of relaxing muscular spasm and of allaying nervous irritation generally, the

calls made upon it by the profession are very numerous, and, when properly used, it is one of the greatest gifts of Medicine to suffering Humanity.

A.

Thesis on
Typhoid Fever.
Submitted to the
Faculty of the University
of Maryland
by
J. Yingling
Class of 1877 & 1878.

Typhoid Fever.

This fever has been recognized under the names of nervous, enteric and continued fever, and has perhaps been the subject of as much careful investigation as any disease to which the medical profession has given attention. In regard to the cause of typhoid fever a great diversity of opinion is entertained among the most learned of the profession many of whom contend that to some extent it is contagious and cite strong evidence to sustain this opinion while others equally entitled to confidence insist that it is non-contagious. At the present time, however, nearly all seem to agree that it is caused

in some way by the effluvia arising from the decomposition of animal matter, or other influences that greatly depress the vital forces of the system such as being crowded together with others in badly ventilated hospitals, without a sufficiency of good nourishing food &c.

Symptoms, the stage of incubation, is frequently of long duration in this disease and remarkably insidious in its approach; its commencement in some cases being almost imperceptible, while in others it begins suddenly with a chill followed by fever, but usually in this country it comes on so gradually, that it is often hard -

to fix the precise time of commencement. The patient complains of languor and debility with a dull and heavy feeling in the head, the countenance is pale and sometimes even natural. The bowels are at first constipated; but in the course of a few days there is a tendency to diarrhoea. The pulse is accelerated, and a creeping chilly sensation is felt commencing in the back, and passing over the entire body. The chilliness is soon followed by a slight increase of all the symptoms, together with a dry and warm state of the skin. The symptoms frequently follow each other in rapid succession, but

sometimes there is an interval of several hours, with the development of reaction the pulse becomes full and open, or soft, and weak, in some cases soft and easily compressed, or if of a nervous character quick and sharp. The tongue is generally loaded with mucus, and is broad flabby and moist, but sometimes coated in the center, but with reddened tip and edges, there is considerable thirst; In some cases the tongue is heavily loaded, especially at the base, and feeling of oppression at the stomach, The urine is slightly diminished in quantity and highly colored, The temperature of the surface varies greatly, The bowels are at first

exhilarated, but in the course of a few days there is a strong tendency to diarrhoea. The countenance becomes dull, pallid, and shrunken, or unnaturally flushed, the eyes devoid of lustre, and the head heavy, confused and giddy. At times the patient seems quite uneasy and restless, changing his position frequently, but at others is torpid. By the fifth to the eighth day an eruption manifests itself over the neck and breast in small rose-colored spots, about the size of the head of a pin, the color disappearing when pressing the finger over them, but returns when the pressure is removed, and as the disease progresses, it continues to spread, until it

pimple extends over the whole body.
The patient now reasons with difficulty
and is slow about answering questions
as his mind has become confused and
delerious. The bowels has also become
tender and painful under pressure,
from the eighth to the twelfth day
diarhoea becomes troublesome and is
difficult to arrest, with increased ten-
derness and flatulent distention of the
bowels. The nervous symptoms also
become aggravated, and delirium is
fully established, the patient wanders,
he talks to himself and will be heard
repeating things pertaining to his
business, pleasure &c, sometimes this
typhomania changes into the some

of a profound stupor, but is aroused by the slightest sound but immediately sinks back into his former condition. The tongue by this time assumes a red appearance, especially upon it's tips and edges, when it is protruded it may be seen to tremble, and in some cases difficult to protrude.

The pulse increases in frequency but diminishes in fulness, and in the latter part of the disease it becomes very compressible.

The eyes have a glistened appearance. Breathing is laborious, the mouth is apt to remain half open, and sordes accumulate upon the teeth. The urine assumes a dark red appearance and

becomes scanty and nearly suppressed, Prostration is now extreme and the patient inclines to slip down to the bottom of the bed. The faeces and urine are now in some cases discharged involuntarily, subsultus-tendinum also comes on, with picking at the bed clothes and frequently the bowels which have ulcerated terminates in perforation, followed by a discharge of the contents into the cavity of the abdomen. The body becomes covered with a cold clammy sweat the vitality of the system is exhausted, the pulse at the wrist cease to beat and the patient dies.

Diagnosis. In the first stage the

dullness of intellect, languor, prostration of strength chilly sensations, followed by fever, and feeble pulse is sufficient to enable the physician to decide on the character of the disease. Then the tongue condition of the bowels tenderness on pressure, delirium, eruption, tongue, sordes on the teeth, peculiarity of the countenance, and diarrhoea, will all tend to make the diagnosis clear. Prognosis. If there is no complication with other diseases the prognosis in typhoid fever is generally favorable, but should complications arise the disease becomes critical, and the prognosis should be guarded. The symptoms usually regarded untunable

in Coma, subsultus tendinum excessive diarrhoea, involuntary discharges of urine & faeces from the bowels, a pulse running at the rate of 130, or more, and very feeble, coldness of the skin, attended with clammy sweat, great abdominal distention and prostration, the opposite condition is the one regarded favorable. The treatment of typhoid fever, has been, and still is a subject of much intent and investigation and owing to the diversity of opinion on the part of medical authorities as to the best method of treatment the student must necessarily at first feel that considerable experience in the treatment of the disease, will

be required to enable him to fall upon some plan that will prove satisfactory. In the early stage of the disease, a sedative followed by a tonic course of treatment would seem to be indicated, with a view to ameliorating the symptoms if not in actually shortening the disease. Purgatives are very injurious; but when the bowels remain constipated three or four days an aperient, and sometimes an enema will accomplish much good. The head should be kept cool, and the feet warm, while hot fomentations to the bowels will do much towards relieving them of tenderness, and distension, sponging off

the entire surface of the body every few hours when the nerves are high, and once every two, or three days when reaction sets in will be of great benefit. For pain; and to check the diarrhoea in cholera, if it should be used, the nervous system will often yield to the free administration of Bromide of Potassium, or, for irritation of the stomach; mucilaginous drinks, Carminatives &c, will generally allay it. After a judicious use of Quinine as a tonic, Hydrochloric acid will take its place, as a good substitute, and act as a restorative, when the system is very much prostrated Brandy should be used in

connection with the other agencies.
As a diet there is nothing more
nourishing than beef tea with Crack-
ers &c,

Respectfully
J. Yingling

Thesis written by

John H. Livingston

of

Darien Georgia

Class of 1878

Rheum Palmatum,

Rhubarb Root. The dried root deprived of the bark, from one or more undetermined species of Rheum Linn. from China, Chinese Tartary, and Thibet. Imported from Shanghai and Canton, and brought overland by way of [illegible]. Notwithstanding the length of time the rhubarb has been in use, it has not yet been determined from what precise plant the Asiatic drug is derived. The remoteness of the region where it is collected and the jealous care with which the monopoly of the trade is guarded, have prevented any accurate information on the subject. All that is certainly known is that it is the root of one or more

species of Rheum. The United States Pharmacopoeia refers it to Rheum Palmatum with other species not designated; the British recognises no particular species. The terms rha and rheon from the forms of which were derived the names rhabarbarum and rhubarb and from the latter the botanical title Rheum, were applied by the ancients to a root which came from beyond the Bosphorus and which is supposed, though upon somewhat uncertain grounds, to have been the product of the Rheum Rhapontium, growing on the banks of the Caspian Sea and the Wolga. This species was also at one time believed to be the source of the

medicine were in use; but the true rhubarb has long been known to be totally distinct from the Rhapontic and derived from a different source.

It was not till the year 1762 that any probable information was obtained as to its real origin. At that time plants were received from Russia by Professor Pallas, and Rand in England, which were said to be of the species affording the genuine rhubarb, and were named by Linnaeus, under this impression, Rheum palmatum, a title which has since given way to Rheum undulatum, subsequently known, and Bretland obtained from a merchant who dealt in the Rhubarb of

Turkey some seeds which he said were those of the plant producing the root sold by him. These having been planted yielded two species of Rheum, Rheum undulatum, and another which Linnæus named Rheum palmatum. Seeds transmitted by Dr Mounsey from St Petersburg to Dr Hope, and planted in the Botanic garden at Edinburgh, produced the latter species; and the same was also raised at Upsal from a root received by Linnæus from Dr Garter, and was described by the young Linnæus two years after the appearance of Dr Hope's paper in the Philosophical Transactions. Thus far the evidence appears equally in favour of Rheum palmatum and Rheum undulatum. The

claimes of another species were afterwards presented. Pallas, upon exhibiting the leaves of Rheum palmatum to some Bucharian Merchants, was told that the leaves of the rhubarb plant were entirely different in shape; and the discription he received of them corresponded more closely with the Rheum Compactum, than of any other known species. Seeds of this plant were, moreover, sent to Miller from St. Petersburg, as those of the true Tartarian rhubarb. A few years since the attention of naturalists was called to a fourth species, for which the same honour has been claimed. Dr Wallish, superintendent of the botanical garden at Calcutta, received seeds that were said to be those of the plant which yielded the Chinese rhubarb, growing

in the Himalaya Mountains and the highlands of Tartary. These produced a species not previously described, which Dr Wallich named Rh. Emodi; from the native title of the plant. It is the Rheum Australe of Mr. Don and of Colebrooke, and has been ascertained to afford a root which, though purgative, is very unlike the officinal rhubarb. Other species have been found to grow in the Himalaya Mountains from which a kind of rhubarb is made use of by the natives, is said to be produced; but none of it reaches the markets of this Country or Europe. From what has been said, it is obvious that no species yet mentioned can be considered as the undoubted source of Commercial rhubarb; the plant having in no instance been seen and examined by naturalists in its native place. Sicous;

an apothecary sent to Siberia, in the reign of Catherine II., second with the view of improving the cultivation of the native rhubarb, asserts, from information given him by the Bucharians, that all the seeds procured under the name of true rhubarb are false, and pronounces "all the descriptions in the Materia Medicas to be incorrect." This assertion, however, has no relation to Rhubarb Australe which has been subsequently discribed, but it is said that the roots of that plant, dried by the Medical officers of the British army, differs from true rhubarb in appearance and power. All the plants of this genus are perennial and herbaceous, with long branching roots, which send forth vigorous stems from four to eight feet or more in height, surrounded at their base with numerous very large petiolate leaves

and [illegible] in [illegible] branching [illegible], composed of small and very numer-ous flowers, resembling those of the Rumex [illegible]. There is some difficulty in arranging the species, in consequence of the tendency of the cultivated plants to form hybrids; and it is frequently impossible to ascertain to which of the wild types the [illegible] garden varieties are to be referred. The leafstalks of the differ-ent species of Rheum have a pleasant acid taste, and are used for making tarts and pies. It is for this purpose mainly that the plants are cultivated in this Country.

In relation to the culture and prepara-tion of Rhubarb our information is not so [illegible] upon the subject of its natural [illegible]. The accounts received from the Bu-charian Merchants are very discordant, and

Few intelligent travellers have penetrated into the County where the medicine is collected. I shall present a brief account of what have been collected upon the subject from different authorities.

Rhubarb is produced abundantly in the elevated lands of Tartary, about the lake Koko Norr, and is said to be cultivated in the neighbouring Chinese province of Shen-sei, and in that of Setcheen. From these sources it is generally supposed that our supplies of Russian and Chinese rhubarb are exclusively derived; but the root is also collected in Boutan and Thibet, on the North of the Himalaya mountains; and it is probable that the plant pervades the whole of Chinese Tartary. It flourishes best in a light sandy soil. It is stated by Mr. Bell, who on a journey from St. Petersburg to

Pekin, had an opportunity of observing it in a growing state, that it is not cultivated by the Tartars, but spreads up spontaneously in Tufts wherever the seeds have fallen upon the heaps of loose earth thrown up by the marmots. In other places the thickness of the grass prevents their access to the soil. The root is not considered sufficiently mature for collection till it has attained the age of six years. It is dug up twice a year in Tartary, in the spring and autumn; in China not till the winter. After removal from the ground, it is cleaned, deprived of its cortical portion and the smaller branches, and then divided into pieces of a convenient size. These are bored with [illegible], and strung upon cords to dry according to Mr. Bell about the tents and on the horns

of sheds, according to Sievers, under sheds, by which the rays of the sun are excluded, while the air has free access. The Chinese are said first to place the pieces on a stone slab heated by fire beneath and afterwards to complete the drying process by exposing them to the sun and air. In Boutan the roots are hung up in a kind of drying-room, in which a moderate and regular heat is maintained. Much time and attention are devoted to the preparation of the root; and Sievers states that a year sometimes elapses from the period of its collection, before it is ready for exportation. A large proportion of its weight is lost in drying, according to some accounts four fifths to others not less than seven eighths.

it is probably in order to favour the drying that the bark is removed. The trade in rhubarb is said to centre in the Chinese town of Si-ning, where a Bucharian company or family is established, which possesses a monopoly of the trade, in consideration of a certain tribute paid to the government. To this city the rhubarb is brought from the various places of its collection, and, having been duly assorted and undergone further preparation, is transmitted partly to Russia, partly to the coast of China; so that the drug which reaches us through St. Petersburg is procured from the same neighbourhood with that imported from Canton. But it will soon be seen that there are differences

between the Russian and Chinese rhubarb, which would seem to indicate a different origin and might authorize doubt as to the entire accuracy of the above accounts. It is at least probable that the drug produced in the province of Setchuen, whence the best China rhubarb is said to be brought, takes a more direct route to the coast than that through the town of Si-nin. Besides the two commercial varieties just mentioned, a third occasionally comes to us from Europe, where the cultivation of rhubarb has been carried on for some time, especially in France, Belgium, and great Britain. Of these three varieties we have namely, Chinese or India rhubarb, which is brought to this country from Canton.

European or English rhubarb. Is impor-

...ed into this country from ... Europe ...
France. This formerly came in two forms,
... the root was cut and perforated in
imitation of the Russian, but very little
of this variety is said to be found in our
market at this time. I shall only speak
of one of the three varieties which is considered
the best that is brought to this country.
Russian or Turkey Rhubarb. This variety
comes in pieces of irregular and somewhat
angular appearing as if the bark had been
shaved off longitudinally by successive strokes
of a knife, and a portion of the interior sub-
stance removed with each shaving. They have
a cleaner and fresher appearance than the
Chinese, and their texture both internally
and externally, though of the same general
character is somewhat more lively. They

are less compact and heavy; and are cut with less facility owing to their giving way before the knife. Another distinction is the character of the perforations, which in the Russian rhubarb are larger, frequently reaching only to the centre and evidently made for the purpose of inspection; while in the Chinese they are small and penetrate entirely through the pieces, and were intended for the passage of cord. The taste and smell of the former closely resemble those of the latter, except that the Russian is more aromatic. There is the same crackling under the teeth and the same yellow stain imparted to the saliva; but the colour of the powder in this variety is a bright yellow, without the brownish tinge exhibited by the Chinese. There is to be found minute

crystals of oxalate of Calcium which causes the crackling noise when chewed.

The care which renders the Russian rhubarb so free from defects tends greatly to enhance its price, and to limit its consumption. Its great comparative value in the market has led to frequent attempts at adulteration; and the pieces of Chinese rhubarb are sometimes cut down and prepared so as to resemble the Russian. The fraud can be detected by adverting to the peculiarities in texture, colour, & weight by which the varieties are distinguished, and to the occasional presence of the small perforation &c; or vestiges of it; sometimes the hole is enlarged at its two extremities and closed by powder in the middle, with the view of concealing the

larger perforations of the Russian pieces. And
wormeaten pieces are made to resemble the
sound by filling up the holes with a mixture
of pulverized rhubarb and mucilage and covering
over the surface with the powder. By removing
this the fraud is at once revealed.

Choice of Rhubarb. In selecting good rhubarb
without reference to the commercial variety those
pieces should be preferred which are moderately
heavy and compact of a lively colour, brittle fre-
senting when broken a fresh appearance with
reddish and yellow veins intermingled with white
of a odour decidedly aromatic of a bitter and
astringent not mucilaginous taste feeling gritty
and staining the saliva yellow when chewed,
and affording a powder either bright yellow with
but a slight reddish brown. Since when very light
rhubarb is usually rotten or wormeaten, when

very heavy and compact, is of inferior quality culture or preparation. Rotten, worm-eaten or the more inferior rhubarb is often powdered, and coloured yellow with turmeric; and the shavings left when broken rhubarb is trimmed for powdering, or to imitate the Russian, are applied to the same purpose.

Chemical Properties. Rhubarb yields all its activity to water and alcohol. The infusion is of a dark reddish-yellow color, with the taste and odour of rhubarb, and the residue after sufficient evaporation is whitish, inodorous, and insipid. By long boiling the virtues of the medicine are impaired. There is found rhubarbaric acid, gallic acid, tannin, colouring extractive, sugar with tannin, starch, gummy extractive, pectic acid, oxalate and gallate of calcium, oxalate of calcium, sulphate and

chloride of potassium, silicia phosphate of calcium, and oxide of iron, lignin and water.

Medical Properties and Uses. The medical properties of rhubarb are peculiar and valuable. The most remarkable singularity is the union of a cathartic with an astringent power, the latter of which however does not interfere with the former, as the purgative effect precedes the astringent. It is also tonic and stomachic, invigorating in small doses the powers of digestion. It is not probable that these properties reside in a single proximate principle, and as rhubarb owes its chief value to their combination it is not to be expected that chemical analysis will be productive of the same practical advantages in this, as in some other medicines, the virtues of which are vested

stituted in one ingredient. In its pur-
ging operation, rhubarb is moderate, pro-
ducing feces rather than watery discharges
and appearing to affect the muscular
fibre more than the secretory function
& sometimes occasion griping. The col-
ouring principle is absorbed and may
be detected in the urine. By the long
continued use, the perspiration, espe-
cially that of the axillae, is said to be
come yellow, and the milk of nurses
cathartic. It gives a yellow colour to the
urine discharges.

The conditions of disease to which it
is applicable may be inferred from its
peculiar properties. When the stomach is
enfeebled, or the bowels relaxed, at the same
time that a gentle cathartic is required

rhubarb as a general rule, is preferable to all others. Where it can in dyspepsia attended with constipation, in diarrhoea when purging is indicated, in the various stages of cholera infantum, in chronic dysentery, and in almost all those typhoid diseases where fecal matter has accumulated in the intestines, or the use of cathartic medicine is necessary to promote such accumulation. When employed in cases of habitual constipation its astringent tendency should be counteracted by combining it with soap. Magnesia is also a useful associate in disorders of the stomach and bowels. By combination with the cathartics, rhubarb acquires additional activity while it gives increased efficiency to the associated substances. As a general rule

rhubarb is not applicable to cases attended with much inflammatory action. Its griping effect may be counteracted by combining it with aromatics. The dose of rhubarb as a purgative is from twenty to thirty grs, as a laxative and stomachic from five to ten grs. Its medicine are used in a great variety of forms. It is not effectual in decoction. It is frequently given in the form of pills, combined with an equal proportion of soap when its laxative effect is desired. The infusion is much used in cases of debilitated stomach, and is particularly adapted to children. Its syrup tincture and fluid extract are also useful preparations, they are all efficient.

Powdered rhubarb has been carefully

applied to indolent and sloughing ulcers. It is said to have proved purgative when sprinkled over a large ulcerated surface; and the same effect is asserted to have been produced by rubbing it, mingled with saliva, over the abdomen.

Officinal Preparations, Extractum Rhei, Extractum Rhei, Alcoholicum, Infusion, Pills, Pills Rhei, Comp. Pulv. Rhei, Comp. Syrupus Rhei, Syrupus Rhei, Aromaticus, Tinctura Rhei, Tinctura Rhei, et Senna, Vinum Rhei

An-

Inaugural Dissertation

on

Pulmonary Tuberculosis

Respectfully Submitted to the

Faculty of Physic

- of the -

University of Maryland

for the

Degree of M.D.

by

J. D. Stevens of

Balt. Md.

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Pulmonary Tuberculosis.

The formation of tubercle within the lungs, gives rise to the morbid condition known as Pulmonary Tuberculosis, which has been the means of producing an unlimited amount of discussion as to its origin and mode of production.

The Theory, of their origin which has been received up till within a few years, was that of Laennec, who taught that tubercle was deposited from the blood, in which it originated from some materies morbi, has been supplanted by the doctrine of Inoc-

-ulation. which was first brought
foward by Villemin, in his cele-
-brated memoir, read before the
academy of medicine of Paris
in December. Eighteen hundred
and sixty, In which he gave
the results of his experiments
of Inoculation, in some of the
lower animals, with tuber-
culous matter. which at the
end of a variable period, found
that the animals had become
tuberculous. and proving by
this that tuberculosis can be
produced by tuberculous matter
intering the circulation. and this
doctrin has been taken up by

hiemeyer, of Tubingen, and he
going still farther and Insist-
ing that tubercles, are the re-
sults of a Pre-Existing Inflam-
mation. not directly. but rem-
inants of Inflammation such
as old "Pleuritic, or Peritoneal
Effusions, Chronic Inflammations
of Joints, and diseases of Bones,
and Lymphatic glands". minute
particles entering the circulation
and are carried into the Lungs
and there producing a kind of
formative Irritation. in conse-
quence of which there is a pro-
liferation of Connective tissue
cells. and thus the gray Mil'iary

tubercle is produced. and even goes farther and says that blood retained in the lungs from hemorrhages, and the products of Chronic catarrhal Pneumonia, undergoing caseous degeneration and becomes a source of the morbid matter. This Theory of Inoculation, may account for many Cases, but there are some occasionally met which are undoubtedly ones, in which tuberculization has not been produced by these causes, but the materies morbi originating in the blood by some constitutional vice.

The product which all have

recognized as tubercle, is a minute spherical body about the size of a millet or hemp seed, and of a grayish or semi-transparent color. their primary seat of deposition being in the interstitial connective tissue. and are virtually, a foreign body incapable of organization, and must "sooner or later," brake down and be expelled. in this process the tubercles first becomes opaque. and in softening it undergoes a fatty or granular metamorphosis, and when Examined microscopically they are found to consist of granules with

minute free nuclei and cells.
which have a diameter of one
twelve thousandth to one fifteen-
thousandth of an inch. the
larger granules containing
two or three nuclei, these tuber-
cles are deposited in other parts
of the body besides the lungs
chiefly in serous and mucous
membranes, as the Peritoneum.
Pleura. Arachnoid. Pericardium,
and Tunica vaginalis, of the
serous, the Larynx, Bronchial
tubes, and mucous membrane of
the Intestines. deposits also take
place in the lymphatic glands.
blood vessels. testicles. and brain.

There is also another product to which the name tubercle has been given by some; it is an exudation, which takes place into the air vesicle, and is a direct product of Inflammation and resulting caseous degeneration, generally of the Exudation of Chronic catarrhal, and occasionally of an acute croupous pneumonia, it is found either diffused or deposited in small masses, of a size varying from a filbert to a very small orange, and is termed. Crude Yellow or Infiltrated tubercle. this product

has a yellow color and is of a cheesy consistence, and very friable easily broken down with the finger; and presents microscopically nucleated cells with free nuclei, and diameter ranging from one two thousandth to one three thousandth of an Inch, and consisting of an albuminous matter fat granules earthy salts, and crystals of cholesterine. these two classes of tubercles which differ so widely in regards to their causation, the former produced by inoculation and proliferation of connective tissue cells, and the

latter by a degeneration of an inflamitory exudation. have produced much discussion in regards to their relationship.
whether the milliary is produced from the yellow by inoculation, or whether the milliary by aggregation produces the yellow. it is very probable that they are formed in both of these ways. but is a matter to be settled by future investigation.
the usual seat of tubercle (gray milliard) is in the spaces of the + yellow infiltrated generally in the lower part of the lungs.
If the deposit takes place near

the surface of the pleura, adhesions of the two opposed sides may take place - this is one of the precautions of Nature which prevents the softened tuberculous matter from being discharged into the pleural sack. Such an inflammation is indicated by short sharp localized pain resembling that of pleurodynia.

After consolidation of the lung has taken place the Physical signs render us valuable information. the vocal fremitus and percussion dullness is somewhat increased, and unless

the deposit be Extensive and a considerable portion of the lung solidifyed. they, or not very well marked. and they are also modified by several conditions. if the deposit be deep-seated or there is an interposition of emphysematous lung. between it and the surface. so that the vocal fremitus may be normal while the percussion dullness is entirely absent, or in its place may be abnormal resonance.

Auscultation gives more accurate information. the inspiration loses its soft and breezy character, and becomes rude, while the expiration

becomes prolonged and of a higher pitch. and if a loculized spot of bronchitis denoted by a mucous click. caused by the inflammation of the bronchial mucous membra-ne produced by the deposit. it may be considered a positive sign of tuberculosis. the sounds of the heart, are also Conducted with more clearness to the ear. In the second stage, or stage of softening, the dullness will be more Extensive and higher pitched, the pulse accelera-ted, and respirations hurried, and more intensely bronchial, Sub-crepitant and mucous

rales which do not disappear on coughing, are now heard over the seat of softening, and the expectoration of this stage is also characteristic.

In the third stage, in which there is the formation of cavities, the percussion sounds also vary, as the cavity . . . is near the surface, or deep seated. Large cavities, if superficial and lined with a dense wall, will give amphoric resonance, and on applying the ear over the cavity amphoric respiration and voice may be heard. Metalic tinkling, which is not a con-

sound attendant but may sometimes be heard, provided there is a fluid present. in cavities of a smaller size and with yielding walls. if percussed after a full inspiration, and the patients mouth being open the characteristic cracked jar sound may be produced. and in cavities of smaller size cavernous or a blowing respiration, may be heard and require considerable care & experience to distinguish it from bronchial respiration. due to consolidation taking place around a bronchial tube. it may be recognised by the blowing sound

produced by a small cavity is more superficial, and the inspiration is not so harsh as in bronchial consolidation, in which the inspiration is higher pitched, and is harsher than that produced in a cavity. Fluids in cavities give rise to large and small gurgles. according to the amount of fluid and the size of the cavity.

Of the general symptoms presented by this by this disease, is Cough, and is one of the first to attract attension it is generally slight, dry, and hacking. and feels as if it were produced by an irritation in the throat, and at first occuring

only in the morning. and in the
more advanced stages in the night.
The Expectoration at first is
glairy, and frothy, [the froth being
due to the admixture of air.] and
ropy, in the first stage. but in
the second and third Stages it
becomes purulent, and presenting
a numular appearance, and
on being spat into warter. and
on agitation the warter will be
rendered somewhat turbid.
and a microscopical Examin-
ation will reveal portions of disintegra-
ted lung texture, pus cells, and
tubercle corpuscles.
Hemoptysis, is usually the

first symptom to excite alarm, but it does not always indicate tuberculosis, for it may be occasioned by organic disease of the heart, or as a vicarious act in females. the hemorrhage may occur before the deposition has taken place, and according to niemeyer, may be the means of producing tuberculosis. when it occurs in the course of the disease, it is generally caused by ulceration into one of the pulmonary arteries.

Dyspnoea, does not generally occur until the latter part of the second or the third stage,

when so much of the lung becomes involved as to interfere with the due oxygenation of the blood.
Frequency of the pulse is another sign, if it is habitually over ninety, and cannot be accounted for by any of the signs or symptoms, latent tuberculous, may be diagnosed.
Hectic fever, or daily Exacerbation, comes on insidiously, generally in the evening, and is preceded by a chilly sensation, and acceleration of the pulse, and with a circumscribed redness of the cheeks, burning in the palms of the hands and soles of the

feet. follow. and finally towards morning gives away to perspiration, commonaly known as "night sweats". the temperature while the fever is on varies from one hundred. to a hundred and three. the perspiration is usually most profuse about upper part of the body, face neck and chest. and the invalid becomes thoroughly drenched, these copious sweats belong particularly to the latter stages. and adds considerable to the debility of the patient. Diarrhoea, is generally among the latest of the general symptoms to become manifest, it may be

present [in some degree] from the commencement, when it becomes considerable it is then known as Colliquative. an is probably due to Extensive intestinal ulceration, and in some cases perforation takes place. and general peritonitis is the result, and it also may be produced by softening of the mesenteric depositions. of tubeculous matter. which are deposited in the mesenteric glands and mesentery. Odema, of the ankles and face and other parts of the body usually preceed the termination. as also does aphthae, an other

symptoms which are not present in all cases,- as laryngeal, and Tracheal ulcerations, fistula in ano; and suppression of the catamenia, in females [which is frequently mistaken for the cause.] also club-bing of the finger-nails. & Impairment of nutrition, denoted by the diminution in weight. Emaciation Anaemia & These are the stages or General symptoms through which the disease commonly runs. whether it be acute or chronic. the duration varies much. in from three months to ten years the average duration being from

six months to two years. There is a class of cases in which the tubercles occur in crops each crop in succession is softened and expectorated, and is succeeded by an interval of rest in which the patient has very good health and considers himself almost well, it is these cases especially, in which cures are often accomplished, for if by proper treatment these crops prevented from reforming the patient may virtually be considered cured.

The Causes of Pulmonary tuberculosis. have been divided into those which act locally upon the Lungs.

and those which act upon the constitution. It is believed by some that it can be produced by a local cause, as when it occurs from the exudation of pneumonia undergoing degeneration, it certainly In my opinion, must depend upon the constitutional condition of the individual, if he is much below par. or if he has been subject to exposure and privation, the danger in this case is certainly much greater of the products in Croupous pneumonia undergoing such a degeneration, and in this case the local cause would not have been brought into existence.

were it not for the constitutional condition of the Individual. and in those cases which are known as Niemeyer's; phthisis, where there have been retained blood from Hemoptysis, in which the blood undergoes this degeneration and the same results are produced but this does not usually occur in all cases who have hemorrhages from the lungs. to cite a case - there came into Infirmary. in the earley part of last december a sailor. strong and vigorous. who was subject to hemoptysis, at short intervals for three years, and there was no discoverable disease of the lungs 'or heart' in fact nothing to account for it.

it seems very evident that if this
induvidual had been in a differ-
ent condition, but what he to would
have become subject to Niemeyers;
phthisis, in purely local causes
I do not believe, there must be
some depravity of the constitution
behind it. and as Prof Flint
puts it, the local causes act the
part of the match when every
thing is ready for the Explosion.
some of the causes which he gives
are Bronchitis, Pleuritis, & Pneumo-
nitis.- The Constitutional causes
may be divided into the Hered-
itory, and acquired.
The Hereditory, is undoubtedly the

most frequent cause. tuberculosis itself is not inherited, but a physical weakness of the system to take on a tuberculous cachexia. whereby certain low formes of inflammation. from the products of which. tubercle is created by inoculation and cell proliferation. not that there is any special "weakness of the lungs," so to speak, but to a general constitutional dyscrasia. which has a special tendency to the formation of tubercle. not only a tuberculous, in the parents, but a scrofulous diathesis may equally be an exciting cause.

The acquired, cause is generally due to bad hygenic influences which are capable of producing a tubercular diathesis, without the accompaniment of hereditary influence, as it occurs generally in the lower classes, and those who have insufficient means to obtain the necessaries of life. and together, with dark and damp. dwellings, crowded and ill ventilated work-shops. are in many cases a sufficient cause: of the minor causes, are excessive lactation, and all diseases which lower the vitality and leaves the system in a condition fa-

-trable to the development of the tuberculous cachexia - as also will Excessive drains as large discharges of pus. &c

It is absolutely necessary that the diagnosis should be made Early in order that the patients may receive the benefit of an Early treatment; for if it is to be applyed with success it must be begun in the incipiency of the disease. and for such a diagnosis. the physical signs along with the symptoms are mainly depended upon. it will hardly be necessary to Reiterate all the signs. given under the description of the stages of the disease

the family history of the patient, and his or her own personal history will aid materially. it will frequently be necessary to differentiate from chronic Bronchitis in which cough, emaciation, purulent expectoration, and other symptoms which is characteristic of phthisis. but a careful consideration of Physical signs, and symptoms we will be enabled to arrive at an accurate conclusion in most cases.

The treatment of Pulmonary tuberculosis should be hygenic and medicinal, if is seen before the disease has progressed very far

with an immediate application
of the hygienic treatment may
give results. Climate, in
the hygenic treatment, is to be
considered of first importance.
the country is always to be preferred
to the city, especially in the summer
and in winter a southern climate
is preferable, or an inland loca-
-tion with an altitude of from
three to five thousand feet. and
the atmosphere should be light
and dry: in some cases a long
sea voyage is highly beneficial
and may arrest the progress of
the disease, if not cure it. This
mode of treatment is especially

desirable in those cases when the deposit occurs in successive crops, each crop becoming softened and expectorated, the patient should live in the open air as much as possible and a moderate amount of exercise should be taken, and especially horse-back riding and together with good nutritious food, as much good milk, cream and butter as the patient can readily digest. as it is a disease of mal assimilation the oleaginous substances are above all indicated, tuberculous patients should sleep in well ventilated rooms, if possible without at fire. and all cares and anxieties should be given

up and mental recreation, or occupation which interest the mind as far as possible be substituted, and the clothing should be of some good non-conducting material, worn next to the person, daily baths may be taken, not sufficiently cold to chill, and should be followed by a brisk rubbing.

The application of medicine is of secondary importance, in the earlier stages, but in the later stages of the disease it is of special benefit, not that it does not do much good in the earlier part, it is then, when the hygienic treatment is of most value to arrest if possible the

advance of the disease among the most valuable remedys is cod liver oil which can be considered either a medacine or food. for it supplies both indications, and the same may be said of alcoholic stimulants, in some cases its influence is curative and in others preventive in those cases in which coolness of the extremities due to a languid circulation. and as a stimulant is indicated and food in the later stages it is also useful. but in all cases it should be used with discretion, for it is potent for harm as for good, among other remedys which have recommended are chlorate of

potassa, phosphate of lime, and the hypophosphites, have been considered extremely beneficial. The theory on which the hypophosphites were given a supposed deficiency of phosphorus in the system is not true, at least to the extent it was believed. Tonic remedies, as bitter infusions, Cinchona &c. and various chalybeates and the citrate of Iron, and Quinine. and to allay cough sedatives opium, hyoscyamus, belladonna, and hydrocyanic acid, the objection to opium is its action on the skin, producing diaphoresis, which is objectional in some cases. soothing inhalations may allay the irritation which

produces the cough, when the irritation is in the Larynx insufflations of powders, as pulverized white sugar and sulphate of morphia, or a spray is exceedingly useful. or local applications made directly to the Larynx with a brush and by the aid of the Laryngoscope. sinapisms, and liniments, to local pains are sometimes beneficial and applications of Crotion oil as an counterirritant. astringents, are indicated in diarrhoea and if necessary opium. the debilitating night sweats are best treated by atropia aromat. sulphuric acid or white oxide of zinc. General depletion

cathartics, mercurials, or excessive stimulation, are never required in this disease. but a conservative and expectant plan of treatment. the patients nutrition is to be kept up, and improved if possible. plenty of fresh air, good food, and exercise, will palliate and relieve if not cure.

An
Inaugural Dissertation
on
Abortion

Respectfully Submitted
to the
Faculty of the
University of Maryland
For
Degree of M. D.

By
C. McCauley
1878

Abortion or Miscarriage is the premature expulsion of the foetus, at any time between the period of conception, and the sixth month of gestation; At which time the foetus is considered to be viable, though its chances of life at that age, are so few, that the period of viability is generally placed one month later. The expulsion of the product of conception, has been divided into five periods. When it occurs before the twelfth day, it is called, Ovular abortion; if prior to the third month Embryonic; if prior to the sixth month Foetal,

from the latter to about the eight month, premature labor; after which it constitutes labor at full term. The ancients used the term Effluxion, when this accident occurred before the third month, for the reason, that the ovum ovulum is frequently carried out of the uterus by a flow of blood, which usually occurs at the time. Menstruation would have taken place, had not pregnancy previously occurred. Quite frequently the women conceptions are not perceived, this discharge of blood being mistaken for the

return of her menses, and it
thus happens, that many
abortions or Effluxions occur of
which we have no knowledge.
Abortions are more frequent
during the first three, than in
the succeeding six months.
The connection between
mothers and embryo being so
slight, at that time, that any
abnormal flow of blood or mucus,
or the habitual congestion
of the uterus, at the time the
menses would have occurred,
is sufficient to dislodge it.
Various diseases of the mother,
and many other causes may

produce its death, and it is thus expelled as a foreign body. Causes the causes of Abortion are very numerous, and for purpose of convenience may be divided into Maternal and Foetal. There are some causes undoubtedly due to the Father, although his part taken in the great phenomenon of reproduction, is so transitory. Yet the fact of so many women aborting continuously, during the life of their first husbands, and being delivered of living children at terms, after their second marriage seems to show very

conclusively, that the father may be one of the causes. This influence may be caused by the peculiar constitution of the father, or the particular disease to which he may be subject. Among the Maternal causes are certain opposite temperaments, as women of Plethoric habits, who have an abundant menstrual flow and are subject to uterine congestion, causing thereby a detachment of the ovum. Again in women of nervous temperaments, who are subject to sudden fits of anger, or fright and who

lead a fashionable and sedentary life, with luxurious habits. The other extreme of life involving laborious and active habits is also predisposed to abortion. Acute diseases affecting the mother acting directly or more frequently indirectly cause the death of the foetus. The diseases most frequently productive of abortion are the eruptive fevers, notably among them Small Pox and Scarlatina. Additional causes may be found in uterine Rheumatism, lead poisoning, blows upon the

abdomen, falls, repeated vaginal examinations or too frequent and violent coitus, administration of Ergot, Savin, Cotton seed tea, and many other drugs having the specific power of provoking uterine contraction thereby detaching the ovum and precipitating an abortion. Uterine tumors, almost necessarily cause a premature expulsion of the ovum, in consequence of the irregularity of the inner surface of the uterus, and the diminution of uterine capacity which they cause.

Ulceration of the cervix, adhesions, deformities, and the various displacements to which the womb is subject, and in short any cause that may prevent the uterine from attaining its full size, during pregnancy, are powerful causes of abortion. Another and not an unfrequent cause is the peculiar disposition or habit some women have of aborting at a particular period of their gestation. If they abort at their first pregnancy, they are very apt to miscarry, at their subsequent ones,

The cause of this habit was formerly explained by the great rigidity of the uterine fibres, or the laxity of the neck; but these miscarriages when not caused by a hemorrhagic tendency are more naturally explained by the excessive irritability of the womb, which in the course of other pregnancies is overcome, and the woman is delivered at term.

I have no doubt that there are many diseases, to which the foetus and its appendages are subject; though they are but little known; which

contribute largely to the
frequency of abortion.
The foetus from its vascular
connections is subject to the
same diseases, with which
the mother may be affected.
Diseases of the membranes of
the ovum, primary or
secondary, fatty degeneration
of the chorion or placenta,
and in short any thing,
which may cause the
death of the foetus,
necessarily produces its
discharge, by irritating the
uterus, as any other foreign
body would.

If the patient should be predisposed to Miscarriage, all the above causes act with much more force.

Some women abort under the influence of the slightest cause. While others on the contrary encounter severe moral and physical disturbance without any annoyance whatever.

The last cause of abortion, of which I shall speak, is when it is done for criminal purposes This occurrence is alas; too frequent, there are at this time in our Cities, and even in smaller towns too many of those,

notorious creatures, who live by slaughtering the innocent and helpless. The moment that conception takes place, so soon is there a new soul in existence; And he or she, who blots out the life, of that frail being to conceal their crimes, commits, murder; no less than. He who stabs a man to the heart, for the sake of his purse. The means used by them, are many and often proves fatal to the mother, as well as child.

Symptoms no matter what may be the cause of Miscarriage, the phenomena

connected with the expulsion of the ovum, resembles closely those of an ordinary labor; as a rule during the first month the membranes are not ruptured, the ovum being expelled entire.
The most prominent symptoms, and those which are nearly always present to a greater or less extent, are hemorrhage and pain. At a very early period of gestation, as stated above, the patient may abort and not be aware of it, thinking it to be the return of her menses, which had

been postponed, causing a more difficult, and abundant flow than usual. At a more advanced stage, the symptoms are better marked, though they very with the cause of the abortion. If this accident is produced by blows or falls it usually occurs immediately after, if during the earlier months. At a later stage it depends upon whether or not the injury is to the mother, or child, and is slower and more irregular, than at term. The symptoms caused, from the peculiar

constitution of the mother,
are a feeling of languor,
want of appetite, nausea,
aching pains in the back,
shivering followed by heat,
palpitation. After these have
continued a greater or less
time, symptoms similar to those
of labor come on. If a vaginal
examination is made, the
Os uteri is found to be dilated,
and continues to increase as
the pains augment usually
in those cases, in which the
cause has operated slowly,
if the foetus was not dead,
before the symptoms were

perceived; it dies before the labor is completed, When the foetus in the uterus dies, from any disease or violence, the changes in the mother, are very perceptible. All the uncomfortable, and annoying disorders with which she suffered before; now disappear; a miscarriage is now inevitable, and it generally occurs about eight or nine days after the death of the child, although by no means does it always take place that soon Sometimes two or three weeks or a month may elapse.

When the foetus remains in the uterus, that being and the membranes remain intact it does not putrefy, as in the air, but if very young is dissolved by the Amniotic water, or if older undergoes a process of maceration, and shrivels or dries up
If the membranes are ruptured the putrefaction takes place as if exposed to the atmospheric influence
Diagnosis of abortion during the first three months of gestation is extremely difficult. The woman may not

be pregnant, and the hemorrhage, and feeling of malaise may be caused by the return of the menses which from some cause had been suppressed. The pains in difficult menstruation may be intermittent like those of labor. And it is impossible in the early months to tell whether the foetus be living or dead.

If however we take all the symptoms of abortion that present themselves; and the fact that the flow is more or less profuse than usual, and the patients general health we may come to a probable

conclusion. If expulsion takes place before it is brought to the knowledge of the accoucheur or sometimes even the woman herself. The diagnosis after the third month is more certain; because, the signs of the patients pregnancy, are more perceptable. And when the pains, which are more energetic, come on, the uterus can be felt to harden sensibly. The Os uteri, will be softened and dilated, the hemorrhage is more profuse together with the fact, of it occurring at the time, is rare. All the symptoms

of abortion are more perceptible in the later than in the earlier months.

The surest sign however is the death of the foetus which is revealed by auscultation; and also by certain signs perceived by the mother, as cessation of the movements of the child in the uterus. The swelling and prickling sensation of the breast disappears suddenly. and all the disagreeable troubles of digestion also cease.

Prognosis as far as the foetus is concerned is always

unfavorable, for it is either its death which determines the miscarriage; or its death is the consequence of it. There are some cases recorded of a foetus aborted before or during the sixth month, which have lived; but they are exceedingly rare, for should they survive their birth, their want of development makes them unfitted for an extra-uterine life. As to the mother the prognosis is more unfavorable if she aborts during the third or fourth month, than at any other time during pregnancy;

For at that time the expulsion being more difficult painful and protracted, the woman continues for a long period exposed to the danger of hemorrhage; The difficulty or occasional impossibility of extracting the placenta, together with the manipulation employed tends to increase the hemorrhage. The retention of the whole or a part, of the placenta may produce putrid absorption, with a fatal result. The prognosis of abortion to the mother has always been considered more

unfavorable than labor at term. Abortions are more prone to cause chronic disease of the genital organs, than labor at term. Lastly the cause of Miscarriage will modify its dangers. It is more alarming when caused by blows or falls; or by drugs administered internally or by manipulation, as in criminal attempts. Abortions determined by slow and gradual influence — are less exposed to the hazards of hemorrhage and consequently they are less dangerous to the mother.

Treatment consists in preventing and arresting the miscarriage, and in remedying the accident which may attend it.
When satisfied that the foetus is still alive, In cases in which the patient has a habit of aborting, she should be closely watched during her pregnancy; her system kept in a healthy condition, she should abstain from sexual intercourse or any thing that may irritate the womb, At the period her abortions habitually occur.
She should keep perfectly

quiet, avoid all excitement-
recline upon her lounge or
bed and if necessary, should
be under the influence of Opium.
It is very necessary she should
avoid becoming pregnant
for at lest several months in
order as it were to give rest, to
the uterus that it may gain
tone for the great function
which it has failed to
perform. Therefore coition
should be positively abstained
from for several months or a
year if possible.
Women who are Plethoric
and have a hemorrhagic

tendency, profuse menstrual discharges, and who have aborted should before conception be restricted in their diet and especially during gestation should this limitted regimen be enforced.
She should avoid all moral and physical excitements, should remain quiet in bed eight or ten days at every monthly term, and should be bled, notwithstanding the popular prejudice, several times during the early months, and before each menstrual period. Weak

and anaemic women whose constitutions have been racked by former diseases will require a tonic course of treatment consisting of the ferruginous and bitter tonics.
Women who are affected with [illegible] course; as a useful precaution, it would be well to resort to an anti-syphilitic treatment no matter what may have been the cause of the preceding miscarriage.
The necessity of avoiding a constipated state of the

bowels should be strongly impressed upon your patient, and with this view she should make frequent use of warm enemata. If this should prove insufficient she should use light laxatives.

Physical and mental excitement or violent exercise of any kinds, should be avoided.

We have spoken of preventing the abortion; it is now necessary to mention to arrest of it.

If the foetus be dead all the means employed will not prevent its expulsion but as we may not be certain of its death

especially in the early months we should act as if it were viable and endeavour to carry the gestation to term.

The first step in the treatment of threatening miscarriage is absolute rest of both body and mind; Opium and the Bromides must be administered freely so as to quiet the uterus if possible. To these remedies may be added the application of cold compresses over the abdomen.

When convinced of the death of the foetus by the symptoms that accompany it at full term,

such as, pains and hemorrhage, it is proper to hasten the expulsion by all means in our power. If the hemorrhage should prove excessive, we resort to the ordinary means of controlling it by the use of Ergot—cold clothes, ice in the vagina: cold water thrown up the rectum, and finding these means unavailing we resort to that sovereign remedy the tampon. We are to plug up the vagina, either with sponge or compresses. The tampon acts in two ways, both to stop the bleeding, and to

expel the foetus; whose expulsion
is now desired, as all hopes
of carrying it to term is final,
even should it still be living, it is
better to sacrifice the foetus
than the mother. In the earlier
period the the membranes should
not be ruptured for the fear of the
retention of the placenta, which is
more frequent than in full months
later. In an abortion of the sixth month
if the hemorrhage continues internally
when the tampon is applied, it would
be useful to rupture the membranes
and the miscarriage conducted as an
ordinary labor.

To Dr. Bailey.

A Thesis

by

H. H. Holmes.

of

Virginia.

A Thesis

on

The Influence of Climate upon

the Color of the human Race.

Respectfully Submitted to the

Provost, Regents & Faculty of Physic.

of the

University of Maryland

for the

Degree of Doctor of Medicine

by

Henry Heudon Holmes

of

Virginia.

A.D. 1877 & 78.

The Influance Of Climate upon the Color of the Human Race.

Gentlemen. This is a question possesing much intrest, - the more I have studied it; the more interesting it becomes, and the ground it covers is so extensive, that I have to regret my not having been able to divote more of my time to its investigation, and especially do I regret that it did not fall to the lott of some one better qualified then myself. Though under the circumstances I will try and do this subject justice, and live it to your kind consideration.

If we cast our eyes over the globe, there is not little that will attract our attention more forcibly, than the variety of color, which the human race occupying its different portions presents to our view. This peculiarity has called for the much research, and notwithstanding various opinions and theirs have been advanced, we, in a great measure, are yet in the dark, and the question naturally arises, Whence this difference. "What has produced this Variety." The obscurity that envelopes the early history of the world presents an almost insurmountable barrier to my arriving at

at any certain information on this point. the Scripture alone giving an account. and that quite limitid from which any thing can be drawn, that bears upon this subject: That the human race up to a certain period: consisted of one general color. admits of but little dispute. but ~~that~~ that. (which I would call primitive) color may have been, we are not told: neither is it necessary for us in the prosecution of our inquiry. to carry our investigations back into anti-deluvian times for as, what ever changes have been impressed upon man-kind can of course only apply to the discendants of Noah.

The varieties we now meet with could not have existed in his family. Saved with him in the Ark at the deluge; they must necessarily have been of the same race and color. And such also we may suppose to have been the fact. A century later that is up the time of the building of the Tower of Babel; for at that time, the sacred historian tells us (Gen XI. 1) The whole earth was of one language and of one speech. And in the sixth verse we find him representing the Creator as saying "Behold: the people are one, they have one language: Then it was on all will

providence in the pursuance of his great and wise purpose, produced the confusion of tongues, and scattered the people abroad, from thence upon the face of all the earth: From the sons of Noah, Shem, Ham and Japhet: the present human family with all its varieties of color, has had its origin, historians telling us that Japhet settled in Europe and part of Asia Shem in Asia, and Ham in Africa.

The human race has been divided by writers into classes based principally on the varieties of color. It would be waste of time for me to attempt the enumeration

of their various divisions & thus.
I will therefore content myself
with stating that they differ in
their arrangement of the various
classes. As to their number some
give fifteen others eleven whilst
Good. Dumeril Blumenbach and
others reckon five. Gmelin Scarpeli
four. The classification of Cuvier
is however the one. I must approve
it consists of but three varieties.
1. The white Caucasian, or European.
2. The Olive, Mongolian or Artic
3. The black negro, Ethiopian or
African. And from these three vari-
eties he thinks, and I believe correctly
that all the others may be deduced.

Such is a brief outline of the history of the varieties of the human race. I am aware that other theories have been advanced some advocating the opinion that the different distinction of the human races shows distinct species: and others that the human race has proceeded not from one but different sources: each having its own original progenition.

I mention these views however not for the purpose of meeting or refuting them it is unnecessary. they answered the age & are worthy the source whence they emanated, they suit not the present enlight-

limited period.

Holy writ tells us emphatically that God hath made of one blood all nations of men, for to dwell on all the face of (acts, XVII. 26th). where therefore the question again arises: Whence, then, proceed this diversities noticed causing the different nations of mankind. Upon which this classification is founded? I answere with, Good, that they are the effect of a combination of causes and that color of the skin principally depends upon the influence of climate, - there being more readily effected. Who by their pursuits and mode of living are

mast exposed to this influence.
All the deepest colos we are aquai-
nted with are thare of hot Clim-
ates, and the lighter colors are found
in the colder climates of the world.
The birds beasts and even fishes of
the equator are lighter in their colar,
then on other parts of the world.
Hence one reson, at least, for the dark
Jet. which for the mast part,
prevailes among mankind under
the equator, - the dark brown and
Copper colar of the tropics and the
olive, shifting through every intirmed-
iate shade to the fair and sanqu-
ine complexion, as we proceed from
the Tropic narth wards, Hence too the

the reason why the Southern Asiatic and the African, female of the Arab race, when confined within the walls of the Seraglid are as white as the European. It may be said that the Abyssinions are less deeper in Color, than the negro. and yet, thiere geographical climate differs especiti-ally the country standing much higher, and its temperature being much lower

From Buffon. and Cuvier I have taken & condensed the following . . . . . .

observation: Color has been attributed to various causes but experience jus-tifies us in offerming that the

principle cause is heat of climate
When this is excessive, as at Senegal
and in Guina. the inhabitants
are entirley black- when less violent.
as on the eastern coast of Africa,
they are of a lighter shade when
some what more temperate, as in
Barbary, India and Arabia they
are only brown, and when altog-
ather temperate, as in Europe &
Asia they are white, we ought there-
fore to consider climate as the first
and almost the only cause of color
in the human race.
Richerand tells us that there is
but one Species of man and that
the difference which appears in

is owing to the region of the globe, they occupy; To this I might add the views & opinions of other naturalists & physiologists in proof of the opinion that Climate is the principle cause of the variety of Color, but I think sufficient has been said on this point.

It only remains for me to endeavor to show how it is that Climate may produce this effect. The chief difficulty attendant upon the affirmation of this question, lies in our assuming that the two extremes of Color. (white and black) have originated from the same source.

The other varieties can be referred, without much hesitancy to the same primative Stock. The changes being caused by adventitious circumstances operating for an immence period of time. The Skin has been demonstrated and found that it is composed of two Coats the derma or cutis vera, and the epidermis or cuticle on the surface of the former layer are found the sensitive papillae;
The derma, or true Skin, is tough, flexible, & highly elastic in order to defend the internal parts from violence. It consists of fibro-areola tissure, intermixed with numerous bloodvessels lymphatics and nerves,

The fibro-areolar tissue forms the framework of the cutis.

The Rete Mucosum were discovered by Marcello Malpighi, and found that it was the dark-colored tissues of the body, in the Choroid Coat of the eyeball the rete malpigi of the skin is in more less in a sheet. The rete Malpigi of the skin in the black and brown races and in all individuals of dark complexion, in the hairs, and in the substance of Melanotic tumors, There exists a coloring matter known as Melanine, It may produce all the varing grades of hue, from light yellowish brown to an almost absolute black It is deposited in the substance

of the cells in the form of minute germ granules. The rete Malpighi has been examined by Chemists and found to contain Iron May not the Sun, cause it to secrete, (in proportion to the intensity of the Suns rays) more or less of this metal, which being acted on by the fluids will assume shades more or less dark in proportion as this metal preponderates? The darkness of the Skin is generally supposed to proceed from the effects produced upon the pigment by the Solar rays & especially those of the Calorific kind. in consequence of their attaching and detaching the oxygen of the pigment cells, and selling at liberity the

Carbon, which is converted into a more or less perfect charcoal. Blumenbach speaking of the black color of the Aethiopian. believes it to be produced by heat of climate this given rise to an excessive secretion of bile, so that from the connection between the skin and liver an accumulation of carbonaceous matter takes place this being continued for ages, the dark color becomes habitual. So I think that the complexion in any climate would change towards black, in proportion to the degree of heat in the atmosphere, & the quantity of bile in the skin.

A
Thesis
on the
effects of
Alcohol
on the
Physiologically
and
Therapeutically.

By

Lawrence G. Clapp.
Class .78 S. C.

In considering the effects of Alcohol physiologically and therapeutically, we do not propose to enter into any detailed account of all its effects and uses in the animal economy, but only to give a brief synopsis of its most important effects and uses. In submitting this Thesis to the faculty we admit our utter incapability in advancing any one single theory on the subject we have chosen, but intend only to reiterate the more modern views of our

most prominent Therapeutists.

We will first describe its physiological effects on the system, afterwards its therapeutical uses as now employed by the profession.

Alcohol when brought in contact with the skin, provided it is kept from evaporating produces a sense of heat & slight inflamation; if continued for a sufficient length of time the tissues become shrunken, wrinkled and hardened caused

by its property of abstracting water & condensing albumen.

It was contended by some that Alcohol is not destroyed in the body and they very naturally inferred that it could not in any degree play the part of food not being either assimilated as tissue nor discharged to liberate force. Admitting that alcohol may be found in the brain as such we now know that these observations have been entirely refuted. This question does not seem however to

have the importance so often ascribed to it. The real question to be determined is the effect it produces on the blood and various tissues. We will describe its effects on the various organs and tissues as it comes in contact with them.

When taken into the stomach in very small quantities it appears to aid digestion, in large amounts it checks it reddens the mucous membrane and produces a chronic catarrhal condition, for the mucous follicles under the influence

of repeated stimulation, pour forth a pathological secretion.

When taken daily and in large quantities it causes either enlargement of the Liver by producing albumenoid and fatty deposit or it causes at once or following the enlargement, increase of connective tissue, contraction of Glisson's capsule, and atrophy of the portal canals and of the cells by the pressure of a stimulating exudation commonly called Cirrhosis of the Liver.

Its action on the Spleen
is not known
In its effects on the Lungs
it lessens the amount of CO_2
in the expired air in large
quantities it allays the mucu-
lar condition of the lungs
as Chronic Bronchitis and
Catarrhal Emphysema are cer-
tainly more common in those
who use alcohol to excess.
In first it increases
the force and sometimes the
quickness of the heart's ac-
tion. Eventually it tends to
lower the heart's action and

partially paralyzes the blood-vessels by its action on the vasomotor nerves, so that there is a general turgescence of the blood-vessels. In large quantities habitually taken it tends to the deposit of fat as well as perhaps to other parenchymatous changes.

The amount of fat is either increase in the Blood or is made more visible. The Chemical Changes in the blood are partially arrested. In the nervous system in most persons it acts at once as an anaesthetic, lessening the rapidity

of impressions the power of thought and the perfection of the senses. In other cases it seems to cause increased rapidity of thought and excites imagination but even the power of control over a train of thoughts is lessened. Moderate quantities generally produce a feeling of comfort and exhilaration which ensues so quickly as to make it probable that the local action on the stomach has something to do with the effect. It probably enters into temporary

combination with the nervous structures and interferes with the movements of the nervous currents, as we may infer from the impairment of special sense and muscular power.

Voluntary muscular power is lessened, especially when a large amount of alcohol is taken at once. The finer combined movements are less perfectly made, But it is not certain whether this is owing to direct action on the muscular fibres or to its influence on the nerves. In very large doses it paralyzes

the respiratory muscles and causes death by asphyxia.

The metamorphosis of tissue is lessened and consequently less work is got from the human machine. Hence also the accumulation of imperfectly oxidized bodies such as Uric and Oxalic acids.

The temperature of the body is lowered and the heat-producing faculty is diminished.

Its action on the eliminating organs The action of Lungs & Kidneys is lessened that

of Skin not certainly determined. The large quantities it produces Cirrhosis of kidneys as it does of the liver and stomach. There is rapid proliferation and growth of cells followed by as rapid atrophy and shrinking. It is not certain that such disastrous effects will follow the moderate use of light wines or "Beers" but it is certain that the highest health, the greatest vigor and long life are quite compatible with entire abstinence from these liquids. There is also abundant and incontestible proof that Spirits are

not only not protective but positively injurious in cases of exposure to severe cold or unusual heat, or unusual amount of physical exertion as in war &c. (4) Certain morbific influences, as those which tend to cause yellow fever, cholera, dysentery &c. while they are believed to be somewhat protective against Tubercular Phthisis, since among the various causes of death among the intemperate but few cases of Consumption are found. On the other hand the intemperate have a much greater mortality from head and digestive diseases

than other classes. In the intemperate the mortality at 21–30 years of age is 5 times that of the temperate; from 31–41, it is 4 times as great. It becomes gradually less. Those who drink spirits have a higher mortality than Beer drinkers, but those who drink both spirits and beer have higher still.

Before considering the therapeutical uses of Alcohol we will state here that we fully concur in the opinion of our Prof. Dr. Chew that "if distillation were unknown it would be far better for mankind." As yet I have said

nothing in regard to the moral aspect of intemperance which, even if we confine our views to this world, reveals an amount of evil, far exceeding the physical, terrible as this must be acknowledged to be. When we look around us every day and see, it appears to us, the major part of the rising young men of the country, [illegible] [illegible] ~~ing~~ wasting time, talent and money that are [illegible] themselves both morally, physically and socially we are constrained to exclaim, in the language of [illegible] "Wine is a mocker"

Therapeutic Application.

Before entering in detail into the uses of Alcohol the question arises, is the habitual use of Alcohol favourable or unfavorable to health? As regards the majority of mankind it seems to make little, or no difference whether they use it or not provided it is used temperately, & especially the fermented liquors. But to this rule, as to all others, there are exceptions, as in persons of nervous temperaments &c. It has been very much discussed whether the use of alcoholic liquors are preventive of

of scrofulous or tuberculous complaints. It has been already alluded to on a previous page, that drunkards seldom die of phthisis. In almost all of the low febrile diseases alcohol is used very successfully indeed I might say it is almost indispensable. They are especially valuable in fevers of a typhoid type. They also prove useful in erysipelatous fevers. Scarlet fever small pox and of late it has been especially recommended in diphtheria, both as a preventive & curative. In small doses it is a useful stomachic tonic taken after meals

It is highly recommended in the feeble digestion of old people and in persons recovering from acute diseases. We should be very careful in prescribing it in atonic dyspepsia of women, and in those who pursue sedentary avocations, as habits may be formed which in the end may prove more disastrous than the disease. In the various forms of diarrhoea it is serviceable. Vomiting in its various forms, such as the vomiting of pregnancy, cholera-morbus and cholera may be successfully treated with some of the forms of alcohol.

To attempt to describe all the uses in which alcohol is employed in medicine would be a task not to be thought of in an article of this kind. So we will briefly dismiss the therapeutic discussion of its merits, after noticing some of its various uses locally.

It forms a most excellent application for the relief of bruises, inflamed joints, orbites, cracked nipples, bed-sores, suppurating wounds, salivation etc, etc,

Acute General Peritonitis

inflammation of the Peritoneum was but little known before the days of Bichat, but those who preceded him had given some attention to the inflammation attacking this membrane and advanced many hypothetical notions respecting it, but it is to Bichat whose pioneering & indisputable labors in this line that the Profession is mostly indebted for the clear exposition of this dangerous disease.

Clinical History.

Acute Peritonitis is occasionally ushered in by a chill & developed gradually, but in the majority of cases the attack is abrupt.

and accompanied with severe
abdominal pain & sickness;
the pain is sharp & more
generally attended with a sense
of heat or burning, commencing
in the lower part of the abdomen
in the hypogastric or one of the
iliac regions, & gradually extending
over the whole cavity or it may
be changeable, occurring first
in one spot then in another.
The abdomen is often so tender
at the touch that the slightest
pressure gives intense pain,
& whatever gives rise to contraction
of the abdominal muscles
produces the same effect.
The respirations are shortened

and a deep inspiration is often very painful. The breathing is most generally costal in its character. Movements of the body are also very painful, & sometimes the weight of the bed-clothes can scarcely be borne. Owing to these symptoms the patient usually lies motionless upon the back, with his knees & thighs drawn up so as to relax the abdominal muscles & take off the weight of the bed-clothes; but this posture is by no means universal, the patient may lie on the back with limbs extended or even on his side (generally the left). Tympanites is most always

present the abdomen is very often distended, but in some rare cases is even drawn in. By the constriction, the swelling is generally uniform but sometimes irregular giving to the hand the feel of a tumor. Percussion gives at first a healthy resonance, but as the disease advances it becomes dull.- Auscultation, if performed after the disease has lasted a short time gives the friction sound like in Pleurisy.- The bowels as a rule are constipated, but this is not an invariable symptom & may give way to diarrhea. Vomiting is very

distressing - frequent vomiting
great pain. Hiccough is troublesome
& when severe exhausting if the
attack is severe & terminates
fatally. Thirst is also a very
prominent symptom.
The pulse is usually very frequent
from 120 to 130 beats in a
minute small & tense though
in some extremely rare cases
it has been observed to be full
& very little accelerated, the tongue
is usually moist & covered with
whitish fur, but sometimes red
& dry. The patient is very restless
& sleeps poorly & the countenance
is generally haggard & worn.
Retention of urine is very common

and often necessitates the use of the catheter. The loss of power to micturate is supposed to be due to the distension of the abdomen. Severe pain in the penis has also been noticed in some cases but this is very rare. An aggravation of the pain & other symptoms mark the advance of the disease, but as the crisis approaches, the pain often suddenly subsides giving us a bad prognosis. In fatal cases death takes place in from 24 hours to 7 days. In favorable cases, on the other hand, the termination is indicated by a gradual subsidence of the pain.

and tension, a [illegible] pulse, &
a general frightened expression of
countenance & often a copious
discharge from the bowels and
kidneys.
The anatomical lesions of acute
peritonitis are essentially those
as inflamed serous membranes
generally present. If death has
occurred very early, the membrane
merely presents a red appearance;
in cases of longer duration there
is always more or less of a fibrinous
exudation on the surface of the
membrane & of free liquid in
the cavity. At first it is a thin
nearly colorless layer but soon
becomes more copious is of a

[illegible]
gradually more or less organized
forming adventitious tissue
agglutinating the folds of intestine
together & to the abdominal walls.
Its surface is more or less irregular
which produces the friction sound
observed on auscultation during
life. The organization of the false
membrane depends partly on
the time which has elapsed since
the commencement of the inflam-
mation & the constitution of the
individual. The liquid is found
in much larger quantity in the
iliac & pelvic fossae, sometimes
it is reddened by being mixed
with blood. In some cases the

Peritoneal sac containing pus which among the adherent folds of intestine are small abscesses. Gangrene is very seldom seen unless the bowel has been strangulated.

If the inflammation has been dependent upon the perforation of the alimentary canal or stomach, a fetid gas generally escapes upon the opening of the sac, & the contents of the viscera perforated may be found in the cavity, the character of which clearly designating the organ perforated, thus for example, a portion of undigested or partly digested food from the stomach, a brownish fetid liquid from the bowels, lumps of [illegible]

small from the bladder, &c, &c.—
The causes of Peritonitis are numerous
& varied although the
peritoneum is less liable to become
inflamed than other serous
membranes.— In the majority of
cases it can be traced to exciting
causes & it often occurs secondarily
to diseases of the abdominal or
pelvic viscera, it very rarely occurs
spontaneously or from predisposition,
especially in [illegible] & having [illegible];
but in individuals having Bright's
disease or other exhausting diseases,
& women at the Menstrual periods,
it is much more readily brought
on.— Among the principal exciting
causes, are:- local violence, [illegible]

wounds & violent contusions of the abdominal walls, diminishing operation such as suturing, operation for Hernia, Caesarian section, Paracentesis &c., Among the most frequent causes we also have perforation of one or other of the different viscera, allowing their contents to escape into the peritoneal sac, for example, we may have perforating ulcer or cancer of the stomach, perforation of the gall or urinary bladder & most common, perforation of the ileum incidental to Typhoid fever. Foreign bodies lodging in the Caecum or Vermiform Appendix are not unfrequent causes, all

also has been known to produce it, — its peculiar injection into the cavity of the Uterus & the propagation of inflammation from the diseased organ have been followed by peritonitis, internal strangulations & intussusception of the intestines may also be a cause. —

The diagnosis of acute peritonitis in the majority of cases is clear and readily made out from the great sensitiveness of the abdomen, the pain, the tympanites & the fever — however in some cases it is apt to be confounded with other affections principally hysteria acute enteritis & colic from the

former it may be decided by the subsequent conditions attendant on higher pressure, whereas pain in peritonitis is always proportionate to the amount of pressure, the muscular rigidity of peritonitis is also wanting & there is also tenderness along the line of the lumbar vertebrae. — From acute enteritis it is distinguished by more pain, greater frequency of pulse, rigidity of abdominal muscles, absence of diarrhea & more tenderness on pressure in peritonitis. — From colic it is determined by the pain being continuous, the rigidity of the abdominal muscles, the tenderness

and infrequently + frequent urine,
however all these symptoms are
not immediately developed in
Peritonitis, + in order to arrive at
a positive diagnosis, it may be
necessary sometimes to wait until
the disease is more advanced.—
The Prognosis of acute Peritonitis is
always more or less unfavorable,
+ especially so if it coexist with
other affections it is however now
believed that the rate of fatality depends
very much on the treatment. If
judiciously treated in uncomplicated
cases the prognosis may be favorable.
In protracted cases the power strength
+ constitution of the patient affect
the prognosis more than most of

the other symptoms.—
The views of the Profession as regards the treatment of acute Peritonitis have changed greatly of late. The change consisting in the disuse of blood letting, Calomel & cathartics & in relying on opium as the sheet anchor. Graves & Stokes of Dublin were among the first to report successful cases treated by the free use of opium. 25 years ago Sir Thomas Watson called the attention of the Profession to the evil of using purgatives.
The special object of purgatives is to retard or arrest the peristaltic action, which if allowed to go on brings the exudation constantly

in fresh contact with living animal
parts of the peritoneum, thus
spreading the disease, the opium
also serves in rendering the
system more tolerant of the real
infection.- The opium should
be administered in doses large
enough to produce certain effects
& to relieve the pain as soon as
possible, as this is generally a sign
that the peritoneal action has been
arrested, & the pain should also
be kept in subjection. The
good results of the treatment depend
very much on its early beginning.
The treatment should be commenced
by a full dose - for an adult -
from gr. i - ii of opium every 2 hours

& later not so often, but no general rule can be laid down it depends upon the susceptibility of the patient, but in all cases an over degree of narcotism should be avoided, the number of respirations & the contraction of the pupil should be attentively watched, the respiration should not remain below 10 or 12 per minute. The doses should be gradually diminished as the symptoms show improvement. The amount of opium taken varies much in different cases, as to the susceptibility of the patient & the amount of pain as was stated before. Dr Alonzo Clark of Bellevue Hospital called attention

is the fact that quantities of opium which in health would result fatally, would in this disease not only be borne but would be productive of good results, thus in one case mentioned of opium which was successfully treated, the patient took the first day grs cvi of opium, the second day grs cccclxxij on the third day grs ccxxx on the fourth day grs cxx. on the fifth day grs Liv. on the sixth day grs xxij - on the seventh day grs viij - after which the treatment was suspended. This of course was an exceptional case..

Opium is regarded as the most powerful agent we have in the treatment of this very dangerous

disease, [illegible] [illegible] [illegible]
are also important [illegible] to be
borne in mind. The patient
must be kept quiet, the catheter
used if necessary. Local bloodletting
may be resorted to if called for, by
leeches over the abdomen, hot
compresses are recommended
if they can be borne & warm
fomentations are sometimes
grateful to the patient, if vomiting
is excessive, effervescent draughts &
crushed ~~are~~ ice are indicated.—
Tonics, stimulants & good concentrated
nourishment are important.—
If the bowels [illegible] [illegible]
during convalescence [illegible] [illegible]
given [illegible] cathartics employed with [illegible]

Acute Peritonitis

Symptoms- Acute inflammation of the peritoneum is frequently ushered in by a feeling of lassitude; pain in the limbs; and slight creeping chills, alternating with flushes of heat. Headache and a sense of weight in the epigastrium are usually among the the first symptoms. Acute pain is often felt in some part of the abdomen at the very commencement of the disease. Occasionally, however the pain does not occur untill the febrile reaction is established and in some instances it comes on suddenly with much violence during or immediately

after the first sensation of chilli ...
The abdomen is frequently, for a time confined to a small space but it generally soon spreads throughout the whole or a greater part of the abdominal cavity. Pain does not however, always occur in this affection. In some instances of the most aggravated character little or no pain but only slight uneasiness is felt in the abdomen. sometimes the abdominal pains moves irregularly about, remaining for a few hours in one spot and suddenly removing to another. In all instances pressure on the external surface of the

abdomen is extremely painful. In cases of this disease in suffering the patient lies on his back, with his knees & shoulders raised in order to relax the tension of the abdominal muscles, and the pressure of the bed covering. The bowels are constipated, the pulse is frequent, more or less tense, contracted and sharp & occasionally, though rarely it is round & full. The tongue is moist & at first covered with a thin white fur, the edges and tip become sometimes red in the progress of the malady. In severe instances the stomach sympathizes strongly with the abdominal affection, the patient

being harassed with frequent nausea & vomiting in the early stage of the disease. The face is usually pale, exhibiting a peculiar sharpness of feature & an expression of great anxiety. Constant wakefulness is very commonly present throughout the whole course of the disease but delirium rarely occurs except towards the conclusion of fatal cases. Generally in the course of twenty-four, to thirty-six hours the abdomen becomes tumid, tense, and elastic, & an exhalent distension of the intestines and extremely tender. Respiration is oppressed and laborious in the latter period of the disease; inspiration

expectation, being short, difficult, and attended with an expression of pain in the countenance. The secretion of urine is almost invariably more or less diminished, and in some instances almost wholly suppressed. When the peritoneal coat of the bladder is the seat of inflammation, the evacuation of the urine will almost uniformly be suspended, and pain felt in the pelvis. The peritoneal covering of the inferior surface of the diaphragm is occasionally the principle or sole part of this membrane which is inflamed, and in this case almost constant hiccough attends.

Acute peritoneal inflammation is generally very rapid in its progress. It seldom continues beyond the sixth or seventh day without terminating either in resolution or in death or passing into the chronic or subacute state. It often terminates fatally as early as the third day; and Andral asserts that its progress is occasionally so rapid, that only a few hours intervene between the origin of the inflammation and death. Acute peritonitis is particularly prone to terminate in gangrene. When this occurs the abdominal pain suddenly subsides; the pulse becomes very small [illegible] and often intermitting;

and the countenance pale, hollow, and contracted. Slight wandering delirium usually occurs at last in cases that terminate in this way.

Causes. Acute peritonitis may be produced by mechanical injuries of the abdominal viscera; violent and long-continued corporeal exertions; stricture of the colon and rectum; perforation of the stomach or bowels by slow ulceration, & the consequent passage of the ingesta or feces into the cavity of the abdomen; extravasation of blood, urine, or bile, into the peritoneal cavity; the action of cold on the surface of the body, causing sudden suppression of the perspiration;

wet and cold feet; drinking cold water while the body is in a free state of perspiration; sudden suppression of the haemorrhoidal discharge, or of the nausea; metastasis of erysipelas, and of rheumatism.

Treatment.— Within a few years, an important change of practice, as regards the treatment of acute peritonitis, There are grounds for the belief that by means of the method of treatment which will be here recommended, this disease is managed much more successfully than heretofore. The chance consists, first, in the disuse of bloodletting and cathartics; and second in relying mainly on the use of opium

Governed by the general principles which should regulate the employment of bloodletting in acute inflammations, the indications for this measure are very rarely, if ever, present in peritonitis, a disease which tends to destroy life, & sometimes very quickly, by asthenia. Bloodletting has been much employed in the treatment of of this disease, and certainly clinical observation has abundantly shown that it is not, to say the least, a curative measure.

It is a measure which in this, as in other diseases, must do either harm or good; and in a disease, like this, involving always not a little

danger to life, if it do harm instead of good, the amount of harm, even if not large may bear heavily on the result. Cathartics, also, have been much employed in the treatment of this disease. Not only are they devoid of curative efficacy but they are highly pernicious. An important point in the treatment of an acute inflammation of any part is to secure for the part as much rest as possible. The friction incident to the peristaltic movements tends to perpetuate and intensify the inflammation in peritonitis. It is an object of treatment to arrest these movements and thus secure rest

for the inflamed viscera.
Cathartics not only conflict with the means
for effecting this object, but increase the
inflammation by increasing the
peristaltic movement. However, they are
objectionable on the same score as bloodletting
and other debilitating and depressing measures.
Clinical observation certainly furnishes no
evidence of the usefulness of cathartics in
the treatment of acute peritonitis. On the
other hand, it has occurred to me as to others,
to see the intensity of the inflammation
reproduced by the too early administration
of a cathartic, when the disease appeared
to be progressing favorably, and the patients
life apparently lost in consequence.

Cathartics then should not enter into the treatment of this disease. The bowels should be allowed to remain constipated, if evacuations do not spontaneously occur, during the career of the disease, even if this period be a week or more. In pursuing this course, the physician must expect, in some cases, to encounter the importunities of the patient or friends for medicine to open the bowels. If the patient suffer from an accumulation of feces within the rectum, its contents may be cautiously removed by repeated simple injections. The use of opiates in the treatment of acute peritonitis is not of very recent date. Armstrong, more than a quarter

[illegible] [illegible]. [illegible] [illegible] of

[illegible]stance of this mode of treatment

more particularly in cases of peritonitis

due to perforation. But the credit of

inaugurating the treatment of acute peritonitis

by opiates exclusively, is, in a great measure,

due to Prof. Alonzo Clark. Moreover,

to Prof. Clark is due the credit of ascertaining

that in certain cases of peritonitis

there is a remarkable tolerance of opiates

and that to secure their curative power

it is some times necessary to give

them in enormous doses. The attention

of the profession of this country was first

called to the efficacy of this plan of treatment

by the publication of cases of puerperal peritonitis

treated by Prof. Clark, in the lying-in wards of Bellevue Hospital, in 1854-5-6.

Prof Clark, however, was led to apply this method of treatment to these cases from his previous experience of its efficacy in simple peritonitis.

University Medical College, N.Y.

C. C. Adams

A

Thesis

on

Acute Rheumatism,

by

James Billingslea

of

Maryland.

1878.

To a student, about to write a Thesis, there are many troubling perplexities. First, a great array of subjects arise before him, each tempting him to write upon it: and like an inexperienced hunter on a prairie, when a large flock of birds arise before him, pointing first at one then at another, he knows not at which one to fire; so the student selects first one subject, and pleased with it only for a moment, he takes another; perhaps writes a few lines on it, when another more alluring engages his thoughts, and the previous one is discarded: and so he is led on, until Time warns him

that he must make his selection. So after considering the merits of several of the many subjects which have presented themselves, the subject of Acute Rheumatism has been selected. And now another difficulty comes up. The students mind is as young in Medicine as a new born babe is in life: His original ideas are nil: so that all he can do is to carefully compare the views of the different Authors at his command, and with these and what he has heard from his teachers, endeavor to frame a thesis of other persons ideas, and fill it in with his own words. But to proceed to our subject.

Acute Articular Rheumatism,

or Rheumatic fever, is defined to be "A febrile disease characterized by non suppurative inflammation of the fibrous tissue of the joints." It is a disease of the temperate Zones, being rare in tropical and in extremely cold climates: and it is most frequent in humid changeable districts. A predisposition seems, in general, requisite for this disease, which predisposition may be congenital or may be acquired; and it requires an exciting cause, which is generally exposure to cold or wet, in one way or another. That it is due to a Materies Morbi in the blood, which, acting on the fibrous tissue of the joints, sets up

an inflammation is, now, not disputed: but different Pathologists believe that it is different substances. Some have supposed it to be Uric Acid; but Garrod examined the blood in 40 cases, but did not find the quantity greater than normal. Prout supposed it to be Lactic Acid; and his theory is at present mostly believed. A case is reported where in treating an attack of Diabetis with Lactic Acid, Rheumatism was set up; but whether this was cause and effect or merely a coincidence is not certain. It is supposed that the Lactic Acid, which is normally excreted by the lungs, is retained, and this is probable because

the Endocarditis, which so often exists during and after an attack of Rheumatism, is on the left side of the heart. The theory is, that the blood coming from the lungs charged with Lactic Acid, coming first into the left side of the heart, acts directly on the Endocardium; and before it gets to the right side of the heart, passing through the capillaries, the Lactic Acid is absorbed by the tissues, and the blood returns to the right side comparatively free: and this all seems probable as the experiment of injecting Lactic Acid into the peritoneal cavity of animals was followed by Endocarditis of the right side of the heart: the blood passing through that side of

the heart first after adsorbing the Lactic Acid. Some have supposed Lactic Acid to be formed by the destruction of sugar in the lungs; others by the decomposition of gelatinous and albumenoid tissues, &c. but no proof can be given how it is formed, or even that it formed at all. We do know certainly that there is an excess of fibrin in the blood; this can be demonstrated, and we not unfrequently find coagula of it in the heart and large vessels.

Morbid Anatomy. There is hyperaemia of parts of the synovial membrane, and exudation of serum in the surrounding tissue. The epithelial cells of the synovial membrane are found swollen and

sometimes converted into granule cells, and the Synovia contains mucous and pus cells. The cells of the cartilage swell up, the nuclei divide and form new cells, and so the cartilage is softened and swollen; and these soft places occur in spots and patches visible to the eye. Sometimes ulceration of the cartilage takes place, and sometimes the joint becomes filled with pus.

Clinical History. An attack generally comes on suddenly, sometimes preceded for a few hours or days by fever, or by pain and soreness about the joints. The attack itself is ushered in by fever and violent pains, especially about the joints; often there are rigors. The

large joints are mostly affected, but none are free from it. The joints become so painful that the patient can not bear even the weight of the bed-clothes on them, or to have his bed shaken. There are daily remissions and exacerbations, generally: the temperature ranges from 102° to 105°, rarely exceeding this. There is almost always a profuse perspiration of a sour almost pathognomonic odor, which however is not critical: the patient dries soaked in perspiration and not feeling better after it, as is usual after profuse sweats in other diseases. This acid perspiration, in contact with the skin, sometimes produces sudamina, which have been mistaken for eczema.

The tongue is moist and furred; the saliva is acid; the urine is scanty, red, of high specific gravity, of acid reaction, containing abundant urates, and depositing the usual brick dust sediment on cooling, and there is deficiency of the chlorides. The patient is restless, sleepless, but the intellect is rarely disturbed. Generally there is constipation, but sometimes diarrhoea. The appetite is very poor or lost entirely.

Diagnosis. This is generally not very difficult. The only diseases liable to be confounded with it are Gout, and Pyaemia with purulent effusion into a joint. From Gout it is to be distinguished by the difference in history. Gout affecting those used to the luxuries

of life and who are wont to indulge in stimulating drinks and high living, and at the same time leading sedentary lives; while Rheumatism, for the most part, attacks those deprived of the comforts of life, and who are exposed to vicissitudes of all kinds: but it may attack all classes of mankind. Gout also attacks the smaller joints, especially the metatarsal bone of the great toe, while Rheumatism on the other hand, selects the larger joints, such as Knee, Shoulder, Elbow, Hip, Wrist, &c. From Pyaemia with purulent effusion, it is to be diagnosed by the previous history, which is all sufficient if carefully considered.

Prognosis. The disease per se is rarely

or never fatal. If death take place during an attack, it is from the various complications which so often attend it. The prognosis of some of the sequelae is very unfavorable. The same Materies Morbi that causes the Rheumatism frequently causes also Pericarditis and Endocarditis; and Pneumonia Pleurisy and Bronchitis are common complications. Pericarditis is liable to be set up because the Pericardium is a fibro-serous membrane, and the Materies Morbi has an elective affinity for fibrous structures. Endocarditis is even more common as a complication than Pericarditis because the Materies Morbi is brought into direct contact with the Endocardium.

Pericarditis occurs once in every six untreated cases of Rheumatism, and Endocarditis much oftener. It is from these complications and their consequences that we have so much to fear from Rheumatism. But, fortunately, Scientific research has done much to diminish the frequency of these complications; and now, with our modern treatment, we can nearly always bring our patients safely through, without fearing any of the results which, formerly, happened so often. And in few diseases have we so marked superiority over "our bastard brothers, the globulistic fraternity" as in Rheumatism; for the natural tendency of most diseases is toward recovery,

but this one, as a general rule, although it tends intrinsically toward recovery, takes from six to eight weeks; but by our treatment, often, the patient is perfectly cured in a week; while under the pellet treatment, it requires the same time that it does without treatment, and with no better results as regards heart complications.

Treatment. There is scarcely a disease which has undergone such changes in treatment as has Acute Rheumatism. Nearly every drug known has at one time or another been advocated in the treatment. Formerly, every case was bled as soon as seen, but as this was found to increase the

amount of fibrin in the blood, and as this was known to be in excess already, it was abandoned. Then Mercury was given, in doses sufficient to cause Ptyalism; Colchicum, in doses sufficient to produce vomiting and purging; Opium in large doses; Quinia also in large doses, and many others have been given, each good enough in its place, and when used properly. When none of these remedies were found to cure the disease, the profession concluded that time only could effect a cure, and then used only palliative measures. The disease then ceased of itself in from six to eight weeks, and the patients did better than

when medicated to excess and no reason for that medication. But since Science, in its onward progress, has made known more concerning the cause and pathology of the disease, much more can be done in its treatment. Since the cause of the disease has been supposed to be an acid in the blood, the most natural remedy would be whatever will neutralize that acid, hence the various alkalies have been tried, and with very good success. The Bicarbonate, Carbonate, and Nitrate of Potash have been most commonly used, of which the former has, now, the greatest favor with the profession. Dr Basham

of England gives from one to three ounces of Nitrate of Potash daily, but such quantities are certainly uncalled for, and are liable to produce gastro-intestinal disorders, and so do considerable harm. Later than the above named remedies, Salicylic Acid has come into use in the treatment of this disease. It is given in hourly doses of 7 to 15 grains, until relief and marked amelioration of symptoms take place; then the doses are diminished in frequency as in amount. And in some cases this remedy has acted exceedingly well. Its Modus Operandi is as yet wholly unknown: if solutions of Lactic Acid and Salicylic acid be mingled,

no effect is produced; so its action can not be upon Chemical grounds. After considerable use however, this remedy has lost favor with many practitioners, though some still prefer it. But at present the general treatment of a case of Acute Rheumatism is, to put the patient in a comfortable bed, let him be well protected against vicissitudes of temperature, but not excluded from fresh air. Do not let there be pressure on the affected parts, which should be enveloped in Cotton wool. His diet should be nutritious, but not stimulating. Milk, beef tea, broths &c. may be

allowed as the patients appetite calls for them. He should have drinks of Soda water, Lemonade, &c. ad libitum. Lemon juice, although of acid reaction, when taken into the system, acts as an alkali and helps to neutralize the poison. Saline aperients should be used to relieve constipation, which is often exists. Citrate of Magnesia would be a very good aperient given in the form of Liquor Magnesiae Citratis, or the Effervescing Draught would be a good aperient. Then large doses of alkalies, Bicarbonate of Potash preferably, should be given; doses of about a drachm every three hours,

mixed with citric acid or lemon juice to render it more palatable, and to be taken while effervescing. These large doses are to be kept up until the urine is alkaline, which usually takes place within 24 hours; then the doses are to be diminished in quantity, but the remedy is to be kept up for some days. Opiates should be given, when necessary, to relieve pain. Quinine is useful as an anti-pyretic when fever runs high. Other symptoms must be treated as they present themselves in different cases. And when the above treatment is carefully carried out, it is found that the duration of the disease is considerably

diminished, often the patient being perfectly well in a week, and the liability to heart complications is materially lessened. Fuller reports 194 cases in none of which did heart complication occur, after the alkaline treatment had been kept up 24 hours. But everyone has not met with his success; heart complications do sometimes occur under the best of treatment, but the alkaline treatment decreases the liability to it very much indeed, and it gives the best results of any treatment yet used.

A [illegible]

[illegible]

A [illegible] of [illegible]

respectfully submitted

to the

Faculty of Physic

of the

University of [illegible]

for the

Degree of Doctor of Medicine

by [illegible]

of Penna.

Session of 1877-8

Chloral hydrate usually designated Chloral. With few exceptions there is no remedy in the Pharmacopea more frequently prescribed than this. Although discovered by Liebig in 1832 who discovered its composition and some of its chemical properties but attracted little if any attention of the medical public as a therapeutic agent until the statements of researches and experiments of Dr. Otto Liebrich of Berlin before the medical society of Berlin in 1869 after which it came into rapid and extensive use. It presents in form

of white crystalline masses formed by the adhesion of its crystals. its odor has been compared to bananas, [illegible] or [illegible] apples. of warm pungent taste soluble in its own weight of water, alcohol and ether; alkalies decompose it forming chloroform and formic acid. closely allied to chloroform being one sixth of its inhalation. But is usually prepared by passing chlorine into anhydrous alcohol until hydrochloric acid ceases to escape when the product is shaken with three times its weight

of sulphuric acid and warming moderately in a water bath when an oily liquid rises to the top of the [illegible] after decanting and distilling with a little fresh sulphuric acid and quicklime we obtain the pure anhydrous chloral an oily liquid very volatilizable of penetrating and disagreeable odor and taste. The hydrate of chloral is the result of adding water to anhydrous chloral which causes it to crystalize.

Physiological action locally is an irritant and when kept in contact with a part causes hyperaemia and inflammation has antiseptic properties and is preservative of animal textures. When taken in the mouth produces abundant salivation in stomach produces first a cooling sensation followed by warmth, and when taken in larger quantities than ordinary dose and not sufficiently diluted may set up gastric irritation producing nausea and vomiting or may even give use to active

inflammation. But when taken in moderate quantities has a tendency rather to stimulate than impair appetite and digestion. When moderate doses are administered immediately preceding its hypnotic effect is a stage of excitement usually of transient duration accompanied with a mild stimulation and hyperaesthesia of the surface though subsequently has more of an anaesthetic effect. This is followed by sleep which is extraordinarily like natural sleep in most cases calm, dreamless and refreshing as simple hypnotic it ranks.

among the highest and is often
limited to all other agents of
this class on account of its efficacy
and not having subsequent unpleasant
after effects; although in some
exceptional cases this may be
experienced when we are unable
due to morbid conditions existing
which oppose its action. Its effect
of producing sleep in most morbid
states due to cerebral irritability,
for relieving pain, spasm and
wakefulness has considerable power
but inferior to its opposite effect
and surpassed by some of other
narcotics although by allaying
irritability and controling that

element of pain which depends on tension and throbing which is so noticeable in the pain from early stages of inflammation it is particularly adapted from its power of lessening arterial tension. The sleep produced by this agent is not a narcosis the patient can be aroused without difficulty and will fall asleep again. Sensibility is not destroyed to any great extent unless given in quantities sufficient to suspend the cerebral functions. When sleep is produced by this agent in proper medicinal doses the pupils may be

caused to contract slightly but not to so marked an extent as from opium poisoning. becomes somewhat slower. Respiration usually unaffected. slight reduction of temperature has little effect on secretions although sometimes increase in amount of urine secreted. also a slight diaphoretic action most probably due to its effect of lessening arterial tension. In large quantities it has a decided sedative effect on the heart respiration becomes more irregular with profound narcosis [illegible] of lips sensibility and

reflex movements abolished and
complete muscular relaxation
when death takes place
from suspension of cerebral
functions and finally by para-
lysis of the respiratory centres
and motor cardiac ganglia.
In cardiac degenerations death
may take place before anyone
is far. After death from chloral
congestion of meninges of brain
and cord and of lungs and
distension of right cavities
of heart have been ob
served. When poisonous quantities
are taken and patient is
seen early enough the stomach

should be increased, the
cardiac and respiratory actions
should be sustained by alcoholic
stimulants or carbonate of ammon-
ium on account of its relaxing
influence on the muscular system.
Dr. Liebrich recommends strychnia.
A chloral habit may be
formed by its continued use
the dangers and unpleasant
uses of which are of a
vast amount of importance.
Patients addicted to its
habitual use are usually
if not always of an excited
irritable, and have a debilita-
tion when not under its

influence with injected and
suffused eyes - irritability of speech.
complain of noising in the ears.
empty feeling in the head and
are subject to attacks of anxiety,
restlessness and fatigue; usually
suffer from indigestion. Urine
may be found to contain albu-
min and various other phenomena
of faulty metabolism. Patients suf-
fering from this habit should
be treated by daily diminution
of quantity, substitution of seda-
tive agents of this class such
as the bromides, ext of hyoscya-
mus or infusion of hops with
cool regimen, change of scene.

and tonics of which the
chalybeate and bitter medica-
bles are the best action as chloral
the conversion of chloral by the
action of alkalies into chloroform
and formic acid first suggested
its use in medicine to Liebreich
and hence his theory of its action
being due to chloroform formed by
the decomposition of chloral in
by the alkalies of the blood.
that this takes place is doubtful
is but on the contrary from the
facts that chloral crystals have been
found in the blood and that
the effects produced by the admin-
istration of chloroform and those of

chloral are widely different in some respects that chloroform is not eliminated from the system when chloral is administered which is the case from the administration of chloroform being in form of an [illegible] and that the products of the decomposition of chloral has been detected in the urine we are led to believe that this decomposition can only take place to a limited extent in the blood and that its action cannot be wholly due to this change although there are many who still yet adhere to the conclusion of Liebreich [illegible] that

its action is due to chloroform.
Therapeutical applications. As
a simple hypnotic it has no
equal and hence is preferred
on account of not having the
unpleasant effects following the
administration of quite a number
other narcotics and [illegible]
less from their more frequen-
[illegible] in constitutions which
oppose its action than some
other agents of this class.
Also preferably used in some
instances when opium is
inapplicable in active conges-
tions and inflammations of
brain and its meninges; and

in treatment of cases in which you are in need of an agent of this character with constipation of the bowels. Chloral although not having as thoroughly a relaxation effect on the muscular system as chloroform but is often used for this purpose or to keep up this effect previously produced by the administration of chloroform when wishing to prolong its effect with an agent less potent in tonic contraction of muscles as from tetanus or strychnia poisoning in this manner being a

physiological antidote for strychnia. It is perhaps our most valuable remedy & in the treatment of sea-sick-ness given in doses of grs xv-xx with nourishing food and some mild stimulant stomachic. especially applicable to cases where there is much dizziness and faintness. Where there is much nausea and vomiting it should be given in form of enema grs xx-xl at a time: but still more valuable given in this form in cases of severe and prolonged nausea and vomiting from pregnancy. In

been used in cases of this kind with success after all other antemetic agents had been used to no avail or for protracted vomiting from drunkenness either by mouth or in this form its efficacy may be increased by the addition of potassium bromide or small quantity of morphine. also in cholera morbus with camphor. From its power of reducing temperature and according to statements of Richardson diminishing the coagulability of fibrin of blood and as stated before inclining that particular form

of pain from inflammations it may be used in treatment of this class of diseases; especially indicated when the patient is nervous and delirious. But it should not be given to obtain an treatment of ordinary inflammations unless there are conditions with which would contraindicate or oppose its use. One of which have been mentioned from its power of allaying nervous irritability and of reducing temperature is specially adapted in treatment of the eruptive fevers as these are always accompanied by typhoid and typhus fevers

it is well adapted when there is a condition of nervous excitement into hysteria by giving the patient a good natural and refreshing sleep. According to Dr. Roose the hyper-alkalinity of the blood which is a pathological condition in this disease may by the administration of this hypnotic be converted into a therapeutic condition by its well known reaction with alkalies. As a simple hypnotic for sleeplessness and nervous disturbances from overwork either mental or physical it is superior to any

could we procure but grain one should be taken but by its continued use we develope the chloral habit. In the treatment of delirium tremens it is perhaps attended with more success than any other agent we possess in doses of grs. XX-XXV with same quantity of potassium bromide, or delirium from other causes it is often usually useful as a adjuvant, to arrest attacks of irritability and excitement of mania, to allay the jactitations of chorea, to quiet

convulsions either from other agencies, puerperal given in action, hysterical or epileptic, may often prevent an impending epileptic convulsion if administered when forewarned by the aura. but is inferior to potassium bromide for the general treatment although it forms a good adjuvant. In treatment of the neuroses of the respiratory organs is highly valuable. In asthma when of purely spasmodic nature. in spasmodic stage of whooping cough, if administered in time may not unfrequently prevent

an impending attack of spasm-
odic stricture. In phthisis as
a hypnotic to allay cough, to
reduce temperature and pain,
to control night sweats, is
preferable to opium in this
instance not only from not
having any diaphoretic, but
does not impair appetite, and
sleep produced by it is refresh-
ing while that of opium is
debilitating and exhausting.
To the obstetrician as a valuable
remedy from its relaxing influence
to suspend or allay irregular
contractions of uterus when the
os is undilatable and rigid

also to the surgeon for relief
of a spasmodically strangulated
hernia, or incontinency of urine
or spermatorrhoea, acting in
both latter instances by allay-
ing irritation.
Local applications from its
antiseptic and local stimulant
action is applicable to treatment
of sloughing and foul or indolent
ulcers by its local stimulant
action excites the formation of
healthy granulations. In gonorrhoea
an injection of strength of gr. i-ii
per oz or as a caustic to
chancroid and buboes a saturat
ed solution. In treatment of

chronic opium a drachm of
strength of gr I to ʒj.
Administered under ordinary
circumstances the dose should
not exceed grs XX to begin by
mouth although much larger
doses have been taken with
impunity should be given with
some aromatic syrup or orange
flower water. In form of enema
grs XX-XL may be given at a time
is illy adapted for hypodermic
use on account of producing inflam
mation and even sloughing unless
largely diluted when it becomes
too bulky quantity for administra
tion in this form should not exceed grs v.

Thesis on Bilious or
Remittent Fever.
Submitted to the
Faculty of Maryland
University.

By John S Griffin

February 14th 1878

Bilious or Remittent Fever.

I propose to write on one of the diseases to which my section of Country is subject during the Summer and early Fall under the head of Bilious Fever.

This is one of the forms of fever resulting from the influence of Miasma. It is found to extend from the Northern States to the Gulf of Mexico; it is in fact a fever prevailing in all portions of the Country where the climate is such, only under different names. Called by one name in South America another in India and so on.

From the middle of May until the first of June, Bilious Fever commences in the Southern States and is generally the prevailing disease until late in the Fall.
Many other diseases arising from other causes seems to take on something of its nature, the symptoms of Bilious Fever vary according to the severity of the attack. In some cases it is so mild as hardly to be distinguished from the ordinary Intermittent. While in other cases the disease is characterized by grave symptoms on its first appearance, the

coming symptoms are first found to consist of a general bad feeling scarcely to be described by the patient, the appetite is somewhat disordered, bad feeling in the head and dizzy amounting to a headache, uneasiness about the stomach, pains in the back and limbs, the complexion show-ing a yellowish hue, There are cases in which the disease is ushered in by a slight chill at first and the disease commences as the intermittent form, this chill may continue a short or longer time but in an hour or so

we have the febrile symptoms
skin hot and dry, sometimes
almost burning to the touch,
very often nausea and vomiting
more or less thirst, pulse full
and quick, this febrile con-
-dition is attended with
increase of head-ache and
much restlessness, the head-ache
is described as throbbing.
Matter thrown from the stomach
is not always at first of a
bilious character it may be
undigested food or water tinged
with bile; all cases are not
attended with a decided
chill, but may consist of a
sense of cold and heat alternating

while the skin to an observer will feel rather warmer than usual. There is also a feeling of unusual weakness, and in accordance with the severity of the attack, the patient discovers himself as unable to be up but is compelled to seek a recumbent posture; after remaining in this condition for some time the febrile symptoms gradually subside ordinarily at first with a slight perspiration first found on the neck or forehead oftentimes becoming more or less general, the skin gradually becomes easier head-ache disappears

the Patient becomes quiet and drops off into a sweet sleep to awake refreshed almost feeling well again; the pulse subsides almost to its natural state; sometimes this remission is not as well marked as that just described examining the Patient one hour you will find the fever subsiding and of the symptoms presenting the appearance of a complete remission, in another we find the skin has become dry and increased heat all the symptoms of the former febrile condition returning. Generally after the first chill

we find the chills lessened and in duration more less marked in degree, the hot stage longer until the fever attains its height, if the disease is not checked we find an augmentation of all the symptoms before described. Nausea and vomiting becoming more severe attended by pain or tenderness of the stomach, the matter is more tinged with bile or in fact is mostly bile mixed with fluids drank, the headache more intense the eyes becomes yellow and suffused the tongue shows a yellowish coating and has a tendency to become dry

this condition is frequently attended with constant thirst, when the desire to drink is gratified it is very to be thrown off from the stomach, the urine is diminished in quantity becomes high colored, with a kind of brickdust deposit; there is sometimes a tendency to delirium inability to sleep, and some severe cases we have stupor there is moreover less yellowness of the skin extending over the whole body, the symptoms as mentioned vary somewhat in accordance with the severity of the attack, sometimes there

are others not mentioned showing themselves not always with regularity in this form of fever. Bilious Fever generally lasts from one to two weeks and sometimes when not checked by appropriate remedies has a tendency to end in a low Typhoid condition, sometimes runs into an ordinary Intermittent and may end in a profuse perspiration; After one of the paroxisms leaving the Patient in a very weak and feeble condition subjects him to an attack of Hemorhagic Malarial Fever. All cases of Bilious Fever do not end

resembling, we do cases which
appear to be progressing
towards convalescence, for we
sometimes find the stomach
showing extreme inflamation
and tympanitis of abdomen,
tongue dry and brown, fetid
breath, sordes on the teeth, invol-
-untary discharges from the
bowels. Some hemorrhage (from mucus
lining) skin are these with
stupor and coma the Patient
sinks in spite of all efforts.
Then it assumes the form of
Intermittent if not checked the
blood deprived of its fibrin for
it is said by Watson "that there
is scarcely anything which so

quickly destroying the vitality of the blood as {insured} of
From the infected condition of the patient. He is apt to suffer from purpura and also from splenitis and in fact all the ails which may arise from the deprived condition of the blood.
Bilious Fever running into a low or Typhoid condition assumes the symptoms and character of Typhoid Fever and is to be treated as such.
A paroxism of unusual severity occurring in Bilious Fever should cause us to fear that form of fever called congestive

or pernicious fever and it will become those having the Patient in charge to attend the preventive of its return. The cause of Bilious Fever as said in the beginning of this article as ascribed by nearly all writers on the subject to arise from the influence of Miasma, we find it in all hot Countries prevailing on the borders of streams, low lands, unwarmed Marshes during the hot months, a continued rainy or the opposite is said to be more free from its ravages, while on the contrary first wet and

these day it is known to be more prevalent.
In regard to the treatment of Bilious Stone of course it must be in a measure dependent somewhat upon the severity of the attack and upon the stage of the disease in which we find the same. In ordinary cases if recently or the disease has made small progress an emetic is considered most advisable by some writers, while others think it has a tendency to aggravate the irritation of the stomach already existing, and possibly set up inflammation of that

organs through so much when the stomach is free of undigested food and emetic is thought advisable, 20 Grs Ipecacuanha divided into two doses 10 Grs each given at intervals of fifteen or twenty minutes assisted by copious draughts of warm water may be used or one or two Grs Tartar Emetic; after the action of the emetic an active cathartic should be given, of this class of Medicines Calomel is almost always preferred, it is tasteless and less apt to offend the stomach and more difficult to be thrown up than other medicines

besides its peculiar action on the Liver, it is nearly always used in this manner. may be given alone or combined with others such as Rhubarb, Jalap, Colocynth &c the ordinary dose for an adult is 10 to 12 Grs the dose is often increased to 15 Grs, should the Calomel not act well in four or five hours a free dose of Castor Oil or Sulphate Magnesia may be given, Another Cathartic much used in the South, the Compound Cathartic Pills; this Cathartic is thought to act more efficiently than either of its ingredients used. &

contains smallness of bulk with efficiency and comparative mildness of purgative action, and a peculiar tendency to the Biliary Organs, three pills generally act sufficiently, this pill is composed of Compound Extract Colocynth, Extract Jalap, Calomel and Gamboge, other Cathartics may be used with advantage though much is left to the judgement and discrimination of the Physician, in selecting from the Medicines of this class those most appropriate to the condition and the severity of the disease. After the full effect of the purgative is obtained

the Sulphate of Quinine is con-
-sidered to be the sheet anchor
of the treatment of Bilious Fever
and in fact of all diseases
resulting from the influence
of Miasma, it is now much
more freely used than
formerly and in cases that
was not then thought
advisable, in doses of 10 to
15 Ctrs given during the
remission has been found
to act finely sometimes break-
-ing up the disease or so
nearly so as to deprive it
of its severity. In Congestive
or pernicious forms the
Sulphate of Quinine may be

given in small increasing doses
even as high as four bottles
during the remission; other
remedies are used in the
treatment of this disease when
it fails to be relieved or
mitigated by those mentioned,
Diaphoretics particularly refrig-
-erants are much used, the
solution Citrate Potassa, is often
used, Solution Acetate of Ammonia,
Sweet Spirits of Nitre in case
attended by much nervous
derangement is often prescribed.
Dovers Powders alone or in
combination with Calomel
in alternate doses is highly
spoken of. Another remedy

more in use formerly than at present, is Bleeding, if used at all it is recommended in the early stage the condition described in which it is useful is in cases of strong and previously healthy patients, where the pulse is full, strong, and tense, face flushed, and the pain in the head considerable, especially when these symptoms persist after the free operation of a purgative. Ice is very grateful in the febrile condition, especially when attended with nausea, and that condition of the stomach

supposed to end in inflamation. Iced water applied externally is also highly recommended. In the height of fever Quinine in alterative doses or pushed to slight salivation will be found useful in those cases not disposed to yield to ordinary treatment.

Bilious Fever under favorable circumstances and proper treatment generally ends favorably, there are certain conditions where the system has been abused it is disposed to assume a complicated form these cases are to be much apprehended. In all cases prompt evacuation

treatment is the best plan to pursue by this we prevent those grave complications which this disease is apt to assume, One of those are the Hemorrhagic Malarial

By. John. E. Griffin

A Thesis

on

Asthma

Respectfully submitted to the

Provost, Regents and Faculty of the

of the

University of Maryland

for the

Degree of Doctor of Medicine

by

J. Allen Gladfelter

of Penna.

A.D. 1878.—

To

[illegible]

Professor of

[illegible]

in the

[illegible]

This essay,

Is respectfully dedicated,

As a mark of respect

For his

[illegible]

By the

Author.

[illegible] are the subjects from which he make a choice, that it requires a [illegible] from the inexhaustible store-house of medical science a subject which can do both justice to himself and those to whom his dissertation is submitted for examination; but yet, he must feel as those [illegible]

C[illegible]

[illegible] Constitutional affection, exclusive of an essential fever, an ancient disease described as an affection occurring [illegible] [illegible] described as "[illegible] [illegible]osa." [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] which name was given to the [illegible] by [illegible], the signification of the name C[illegible] being "[illegible]" - C[illegible] is chiefly a[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] of being affected is [illegible] [illegible] [illegible] [illegible] [illegible]

age of two months. After the middle period of life cases are rather infrequent and old age seems to possess nearly an immunity from the disease. Incubation has an indefinite period varying in different cases, depending upon the state of the constitution, the amount of poison exposed to, and at different times of an epidemic usually the period being from two to eight days.

Nature.– Causes.– The great mortality attending this malady has excited a great interest among pathologists and microscopist which has led to a careful study of its nature and causes. The microscopists have taken the lead of investigating and

fulness in the throat; a pricking sensation in the fauces, a stiffening of the neck, pain in deglutition. As the disease progresses the face becomes flushed, the skin hot and dry. The exudation at the onset is thin and semi-transparent, but soon becoming opaque and sometimes becomes dark-brown or nearly black, due to decomposition and admixture of blood, or the use of remedies as the chloride of iron, and the matters vomited. Different cases differ in the extent of the inflammation within the fauces, especially during the first few days, in some being limited to one side, while in others it affects the entire region.

advances, the inspiration becoming
protracted and whistling, if the
mucous membrane of the larynx, pass-
age be swollen accompanied with ex-
udation we have the characteristic
whooping respiration. The skin is
occasionally cool and sometimes
cold, the temperature being but
slightly elevated, being generally not
[illegible]
[illegible]
[illegible]
[illegible] eso-
-agus (providing death has not
[illegible]
Albuminuria is a symptom occurring in
a considerable number of cases, and
[illegible] early period

of smell and hearing may also be defective — Pathological Characters — [illegible] being a constitutional disease and [illegible] diseases it is an essential morbid condition [illegible] [illegible] nature [illegible] to be ascer[illegible] [illegible] as constitutional precede the occurr[illegible] [illegible] constitutional [illegible] [illegible] [illegible] [illegible] sidered by some as being identical [illegible] [illegible] in the latter cases will distin[illegible] [illegible]

in the larynx, whereas in diphtheria it begins in the fauces, and if an examination of the urine be made it will be found to contain albumin which is not the case in pseudo-membranous laryngitis, and the latter affection being [illegible] [illegible] from an accumulation of follicular secretion which is common especially on the tonsils, the latter being of a pultaceous deposit, nor membraniform, nor is it [illegible] it is readily diagnosed from scarlet fever, which has the [illegible] elsewhere.

Treatment. So numerous are the prescriptions and remedies described for the treatment of this disease, that we find it difficult to select those which

may best adapted to treat the region [illegible]
[illegible]
[illegible]
[illegible]
not should not be too irritating as
it will increase the constitutional
[illegible] themselves with soothing and
anticeptic remidies. Local applications
[illegible] inflammation with
a spray or camels hair pencil the
following [illegible] a prescription given
by [illegible]

℞.

Liquor [illegible]
Glycerina āā ℥ii
Acid carbolic ... gr xx.

Mild astringent applications may sometimes be employed with advantage, such as [illegible] of [illegible] [illegible] [illegible] [illegible] [illegible] used, [illegible] [illegible] [illegible] [illegible] as recommended by Prof Richard M[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] guard against death from asthenia. hence [illegible] C. H. C[illegible] M.D. says [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] the disease, and conquers its [illegible] [illegible] and [illegible] it is an antagonistic to [illegible]

[illegible] to be a peculiar [illegible] combined with quinine or the alkaloids of cinchona bark. It has been based on clinical [illegible]

in the alimentary canal, a dose of [illegible]

[illegible]

which will often put an end to the diar

[illegible]

[illegible] as [illegible] of [illegible] camphr. [illegible]

P[illegible] acetas. &c. restlessness is to subdued

by [illegible] or [illegible]

[illegible] building,

231 West Lombard st

Baltimore.

Md.

Room No. 10.

To Facalty of

University of Maryland

Thesis on

Cleanliness in the Practice of Medicine and Surgery

By
William Betterton Turner
of
Mayland

Session 1877+78

In accordance with the rules and requirements of this Institution for a candidate for the degree of Doctor of Medicine to compose and write a Thesis upon some subject in the science of Medicine; I will endeavor as nearly as possible to comply with said rules.

For an undergraduate of medicine to write a Thesis is rather a difficult thing; having never had any, or very little experience of his own that he might write upon, the progress they make under certain treatment and in this way be able to advance original ideas, he is compelled to rely on the experience of others.

Then I [illegible] I have [illegible] to [illegible] be-
fore me. The subject I have chosen
I have been connected with the
Hospital and think perhaps I can
write a thesis upon it. It is
Cleanliness in the practice of Medi-
cine and surgery.

The greater part of my thesis will
be devoted to surgery.

Cleanliness in practice of medicine
and surgery does not mean simply
washing the part or parts in water
and then keeping them clean, but
by keeping from wounds & surfaces
the Germs the Bacteria and Materies
Morbi that may be floating in the
air and by coming in contact w

[illegible] of the parts.

I will take up.

1st Cleanliness as a prophylactic

2nd Treatment of wounds

3rd Cleanliness in rendering antiseptic

of such, only giving a few examples.

What is more disgusting to a Physician than to be called to see a case and upon arriving be shown the way through a long hall and up a long pair of stairs to a room littered with beds, bedsteads, chairs a stove and a few other articles of furniture strewn about in disorder, the floor covered with dirt and a half dozen little children crouched in the corners looking [illegible]

they had never heard of such a thing as water, when perhaps just below in the yard is a hydrant where they might get all the water they could use; only costing a little manual labor. This is not only disgusting but provoking to think human beings can live in such desolation, breeding disease, from neglect to keep themselves clean. Dirt accumulating upon their body and left to remain, closes the many little pores of their skin, thus preventing the escape of the impurities, which nature has intended should pass off in that way. These little outlets being stopped up and the impurities prevented from escaping, poisons the surrounding tissues and in time

[illegible] the system [illegible] prepare the way for disease. It is for this reason that zymotic diseases take hold of this class so readily. One of the first things a Physician should do with this class is to enforce (for they seem to dread water as if it was something terrible) cleanliness and it will often do more than Physic. Cleanliness is one of the greatest prophylactics we have.

I have often heard old persons say they derive great relief from rheumatism by taking a bath every morning. This is due to the amount of friction they use in drying themselves with the towel and the [illegible] of the pores, so the [illegible] can act more freely and thus throw [illegible]

[illegible]

cause of rheumatism! I think it is the

[illegible] gout.

In children there is often found an affection about the Genito Urinary organs arising from a failure to keep the parts thoroughly cleansed. This is more commonly found in male, than female children. In the male when born, there is often found an abnormal growth of the prepuce causing phymosis. This is left alone, the child grows older, still being unable to withdraw the prepuce which consequently prevents the under surface from being cleansed, and allows the secretions under the prepuce to accumulate. In course of time this secretion undergoes decomposition, which

[illegible] the [illegible] [illegible]
to become highly [illegible]. The [illegible] can
easily be removed and it is the duty of any
Physician to do so by circumcision, thus
clearing away the obstruction to keeping
the glans clean. Not only does circum-
cision relieve the little sufferer at the
time, but when he grows older it may
prevent his being inoculated with venereal
virus which might pass under the
prepuce and be having no chance to wash
it away, is allowed to remain and in
a short time produces a sore.

In female children, there is found an
condition about the Labia majora giving
rise to great annoyance, due simply to
neglect of attention on part of nurse [illegible]

should be attended to, for this irritation in both male and female causes the child to scratch and rub the parts, and this very often leading to masturbation early in life.

In Uterine diseases injections of hot water are used with great success. It not only diminishes the size of the uterus, but also cleanses the adjacent [illegible] washing away a purulent discharge. In these cases there is always some leucorrhea which if coming from uterus inflames the vaginal walls and if allowed to remain there will in a short time light up a vaginitis. I might go on telling much [illegible] range of the effects of [illegible] in a [illegible] [illegible], but will now proceed to some other more practical effects.

Nothing is more necessary in the treatment of wounds regardless of their size than cleanliness. What I mean by cleanliness is not simply from dirt, for that would be an error, a wound made almost [illegible] dirt is out. In fact the dirt dressing is one of the best we have; for example cut your finger slightly and if left alone the [illegible] accumulate upon the surface which protects it from the air. In two or three days the dressing thus formed by dirt comes away, leaving a perfect cure, but to keep the wound cleansed of the excess of pus which will exude and from the [illegible] and materies morbi that is constantly floating in the air. The modes of doing this are many. I will divide them in four classes

1st Cold water, dressing.

2nd Simple cerate, dressing.

3rd Carbolic acid, dressing

4the Cotton: dressing

There are many ways of using the cold water dressing, the principal one is by taking a rag wetting it and laying it upon the wound, changing it every half hour. In the changing you remove the excess of pus which may have formed [illegible]. In this way keep the wound constantly [illegible]ed. Every wound must have a certain amount of pus to cover its surface, for the protection of the little granulations which are springing up over its surface.

The application of cold lints to [illegible] given by [illegible] [illegible]

that parts [illegible] constricting them and lessening blood supply and lessening inflammation. This is a very simple and good dressing but is going out of use, somewhat.

Owing to the power of Carbolic acid to destroy Germs. Mr Lister devised a method by which he could keep the limb which was to be operated upon in an atmosphere of carbolic acid, thus destroying all Germs that might be floating in the air & come in contact with the wound made by the operation, and by keeping the wound in this atmosphere afterwards, not allowing any thing to come in contact with wound unless previously soaked in carbolic acid he could make all wounds, [illegible]

made by his knife, and by first intention and thus lessen his mortality. After many trials he succeeded for himself, and a few other surgeons abroad, but his method has not been used with much success in this country.

It consists in having all instruments, ligatures, bandages &c to be used in the operation soaked in carbolic acid. The limb to be operated upon washed with carbolized water. His hands and his assistant washed in carbolized water. Then a spray of carbolic acid is thrown upon the limb and around it. The whole operation being done in an atmosphere of carbolic acid.

After the operation the wound is washed in a carbolized dressing, and never allowed

to be done without being [illegible] in this atmosphere of carbolic acid, until the wound has healed. In this way all germs are destroyed before coming in contact with the wound preventing their irritating effect.

This dressing is the best method of keeping a wound clean that we have, when properly used but the American Surgeons have never used it to any extent, either because they do not know how to use it properly or that it is too much trouble.

Instead they have adopted a method which is composed of the water dressing of [illegible] and of the simple water dressing.

It consists of never washing the wound except with carbolized water two or three times a day and wrapping it with lint

soaked in carbonized oil. This is done for two reasons. 1st to destroy the [illegible] that might come in contact with the wound and produce irritation and inflammation. 2nd to purify the wound.

The simple cerate dressing I should have mentioned previous to Listers method but it is only simple cerate spread upon a rag and applied as the cold water dressing.

Besides the dressings I have given, there is a dressing recommended by a Frenchman by the name of [illegible] which consists of wrapping the wound and adjacent parts in cotton; layer after layer until it is impossible for the air to reach the wound and allowed to stay so for six weeks. At the end of that time the dressing is removed [illegible]

the wound [illegible] treated. The cotton absorbs the gas that forms and also prevents the air coming in contact with the wound carrying out the laws of cleanliness to its fullest extent. If this dressing does act in this manner then it is an excellent method and should be adopted.

I should think the wound or stumpling enveloped in this mass of cotton, the gas forming, for there is always more or less gas formed, and passing out into the cotton is resisted by the cotton and damed back into the wound, making the patient more or less liable to Pyemia. I am inclined to regard this treatment of wounds inferior to some I have given and would say treat all wounds by making a way for the ready [illegible]

of pus either by drainage tube or otherwise and complete rest as nearly as possible with your dressings. The wound heals more rapidly than one under a scab. So all that our dressing amounts to is simply aiding nature in what she is incapable of doing by herself.

Now that I have gone briefly over the different modes of treating, and cleansing wounds I will pass to those cases that require astringents and how important it is to have the surface well cleansed before applying the astringent. I will only consider a few examples. I may say most all cases requiring astringents are affections effecting mucous surfaces causing a thick mucous discharge which adheres very closely to the surface and

[illegible] — applied, it comes in contact with the discharge and is prevented from coming in relation with the mucous surface. So it is very important that the surface should be clean [illegible] astringent, but in some cases you can not reach the surface and have to resort to other means, as in Gonorrhoea. You can not get to the surface directly so may direct your patients to pass his water befor using the injection thus the passage of urin cleans the surface for the astringent to come in contact with it.

In vaginitis it is best to use a warm water injection previous to the astringent.

Affections of Eye lids such as Marginal Blephoritis you must clean the lids either with a needle or a delicate knife or with

a [illegible] of the [illegible] which [illegible] before applying your astringent; without this the astringent would take no effect.

I have passed from one subject to another, skipping over [illegible] them giving only an imperfect idea and description of each as to the necessity and of the use of cleanliness in the practice of Medicine and Surgery. Upon this subject might be written a volume; but as my capacity is not equal to the occasion nor my time allow of me spending more upon it I will close fully appreciating how very imperfect I have rendered the subject of my Thesis

A Thesis

on

Intermittent Fever

respectfully submitted to the

Faculty of Physic

of the

University of Maryland

for the

Degree of Doctor of Medicine

by

John. T. Winslow

of

North Carolina

A. D. 1878

Intermittent Fever

"An intermittent fever is characterized by febrile paroxysms in regular succession, and by the absence of febrile movement between the paroxysm." The intermission is the most prominent characteristic of the disease. Frequently the disease is called by the name of the locality in which it may exist, as, "Swamp fever," "Panama fever" ect. The disease is popularly known by many other names, as, "chills," "ague," "the shakes," and other names which arise from some symptom which may be more noticed in one or other special community. As usually

presentd in practice it does not have an immediate tendency to prove fatal. It however sometimes shows itself in a very grave form, which without prompt treatment would be very often fatal. In my consideration of this subject I shall confine myself to the simple form as usually presentd in practice.

The same anatomical characters are supposd to exist as do in remittent and pernicious intermittent, such as bronzing of the liver, spleen and brain, and presence of dark pigment in the blood. The powers of opportunities for examination after death from intermittent fever, without con-

plications is a very plausible reason for the ignorance of its morbid anatomy.

As studied clinically, the first things to be noticed are its two stages as primary classifications of the interval, which are called the paroxysmal and apyrexial stages. In the majority of cases the attack is sudden. Sometimes the premonitory symptoms are very prominent, though not distinctive of the disease, being pain in the head and general malaise, which are common in the incubation of many diseases. There is however something peculiar to it so that many after having experienced

several attacks can often very accurately predict an impending one. A paroxysm consist of three periods when fully developed, viz., cold, hot and sweating periods. The cold period begins with a sense of chilliness about the loins, thence radiating over the whole body. The chilliness may be more or less marked; sometimes of a slight chilly sensation, at other times muscular tremor and chattering of the teeth. The thermometer placed in the axilla shows an elevation of temperature, while the extremities are cold. The skin presents a pale or livid appearance about the face and nails of the nails. Horri-

pilation, and the appearance of the surface familiarly known as "goose skin" are common symptoms in the cold stage. The patient sighs and the pulse may be accelerated though feeble. The average duration of this period being from a half to three fourths of an hour. Sometimes are substituted for this period gastric disorder and stupor or drowsiness. The spasm of the peripheral vessels explain the appearance of the skin, the blood being forced from the surface. The internal congestion does not seem to have a causative relation to the subsequent stage, as may be shown by not ab-

ways having a cold period seems very ~~clear~~ clear, as shown by Dr. Flint; while others argue with much significance to the contrary.
The hot stage is characterized by more or less febrile movement. Pulse becomes accelerated, skin hot and dry with frequently most intense thirst. Thermometer in axilla shows a temperature of 105° or 106° Fahr. Pain in the head usually continues through this period; which ordinarily last three or four hours. Whether this be merely concomitant, or whether it be dependent upon the internal congestion as mentioned above remains yet to be settled.

The sweating stage is first manifested by perspiration more or less profuse. Febrile symptoms disappear most generally. The cephalalgia, thirst and restlessness cease. The thermometer in the axilla shows rapid decline of temperature. Now the patient usually obtains refreshing sleep, and with this the paroxysm generally ends. The sweating period is very indefinite as regards its duration, the average being three or four hours. During or succeeding the paroxysm, uria, uric acid, and the chlorides in the urine are increased. Albumen may be present, and occasionally blood in the urine is noticed

The apyrexial period varies greatly as regards its phenomena. Some patients present only a slight debility, but sometimes the patient may be prostrated, at other times indigestion, and various other disturbances are presented.

The interval being the time from the beginning of one paroxysm to the commencement of the next, marks according to its duration the type of the disease. Quotidian, tertian, and quartan are the most common types. The cases I have had opportunity to notice since being a student of medicine have been mostly the quotidian type.

Cases are sometimes observed in which the simple types are duplicated. The most frequent concomitant is enlargement of the spleen. The sequelæ are numerous; anæmia, dropsy and great muscular debility the most prominent ones. The duration of the affection is indefinite. It may cease after a few paroxysms or it may continue indefinitely. Some have supposed that if left to itself it would "wear out," and be less liable to return; but on the contrary it is concluded now that the longer it last the more liable is it to return. A slight elevation of temper-

ature is often observed after the visible signs of the paroxysms have been arrested at the period on which they formerly occured. Cases may be presented in malarious regions which instead of well marked paroxysms, or even any appreciable ones at all, there may be only a slight periodical discomfort, or other indefinite ailments.

The causation of this disease involves a "special morbific agent" known as malaria. Lancisi an Italian writer attributes the production of this cause to vegetable decomposition, and named it "marsh miasm." Dr. Flint thinks something

more necessary, and says, "that something more than ordinary vegetable decomposition is requisite for its production is sufficiently proved by the disease being indigenous in certain localities, whereas in certain districts and countries in which vegetable decomposition must take place abundantly, the disease never takes place." In no instance which I had opportunity for noticing, the special cause seems evidently to have been due to vegetable decomposition. The instance being briefly as follows, in a country district previously free from intermittent

fever upon the erection of a dam across a stream during mid Summer, which caused the water to spread over considerable amount of land covered with vegetation; the amount submerged varied considerably according to the activity of the mills connected, which was certainly more favorable for the vegetable decomposition. In a very short time nearly every family for the distance of two or three miles, (varying according to the forest) was afflicted more or less with intermittent fever. Dr J H Salisbury in 1868 published a paper in which he termed the special cause

geniasma, which signifies earth miasm. The generic name he has given the spms of the palustlae mean will enough, but to admit it to the exclusion of all other causes has not I think been sufficiently demonstrated. The period of incubation is variable: being sometimes only a few days at other times several weeks. Exposed to cold, over exertion, and other disturbing influences act as auxillary causes. It is most prevalent in Autumn and Spring. As regards the sexes it affects them equally.

To diagnose an intermittent fever is usually not very difficult. The

disease with which it may
compounded are pulmonary tubercu-
losis and suppuration in some
internal organ. The first can
usually be determined by the par-
oxysms occurring in the afternoon
and by the physical signs which
can be obtained or considerably by
the known hereditary predisposition
To distinguish it from suppuration
in internal organs quite easy. for
the paroxysms are irregular in
occurrence, and the local affection
beside this not yielding to the
treatment appropriate for intermittent
fever. If Dr Salisbury's observations
were correct, there would be no

difficulty in diagnosis. The only thing necessary would be an examination of the urine, when the "agni plant", as he terms it could be detected.

As regards the prognosis there is no immediate danger in simple intermittent fever, which I have been noticing to the exclusion of the pernicious variety. After having lasted for some time it may be dangerous by inducing anaemia and consequent to this general disease. It has been supposed by some that this disease is protective against the development of tubercle in the lungs of those predisposed to it.

But on the contrary I do not see why it should not be direct exciting cause.

Commencing with the treatment I shall first notice the the palliative, or the the treatment to be pursued during the paroxysm.

If a full dose of opium be given at the commencement of the cold period it sums to shorten the attacks or modify its severity. It is said in some cases to have proved curative. Friction, warmth, cups, and such things may be palliative. During the hot stage sponging with cold or lipid water, ice internally, or carbonated water

may be taken. During the sweating stage the surface may be wiped dry avoiding exposure to cold. Dr. A. P. Merrill has used in the beginning of the cold stage chloroform in drachm dos procuring a very desirable hypnotic effect. which treatment has been confirmed by other eminent physicians. As regards the curative treatpreeminently the first thing that would suggest itself to any one would be some preparation of cinchona, and of these, there is no doubt the sulphate of quinia is decidedly the best. The best plan of administration I

thirst is in small doses commun-
ced immediately after a paroxy-
sm and continued until cin-
chonism is produced. Two to four
grains may be given ~~every~~ two
or four hours until the desired ef-
fect is produced. which will gener-
ly accomplished by ten, fifteen, or
twenty grains. As succedanea prob-
ably arsenic is the best, and of
its preparations the most convenient
is Fowler's solution which may be
given in ten or twelve drop doses
three times a day. Salicin in
30 or 40 grain doses is sometimes used also
nitric acid in 5 to 8 drop doses.
Sulphites are said to be useful

There is scarcely any therapeutic agent but what has been recommended, some doing good, some mischief while others have been positively injurious. Why so many things enjoy a reputation is that the disease may and does often end by its own intrinsic tendency to a cure. When the salts of quinia can be obtained they are best remedial agents; and when badly borne a little opium may be used in conjunction with them. General dropsy dependent upon anaemia requires tonics. For enlarged spleen quinine internally and applied locally belladonna plaster or ointment of biniodide of mercury.

The Brain-Its Functions

A Thesis.

James L. Eldridge

Cumberland Valley, Bedford County, Pennsylvania

1877.

Respectfully dedicated to the Faculty of the University of Maryland

The Brain, and its Functions

Diagram.

The Cerebellum; The Cerebrum and its functions; How Mind acts through Brain; Duality of Mind; Habits of Mind; Influence of Mind over Body.

"What a piece of work is man! how noble in reason! how infinite in faculties! in form and moving, how express and admirable! in apprehension how like a God! the beauty of the world! the paragon of animals!"

—Hamlet.

The possession of the reasoning faculties by man, is probably the great barrier which seperates him from, and determines his superiority over, the rest of the animal creation; and the presence of this power in the one, and its absence in the other, undoubtedly results from the difference in the character and structure of brain existing. That this is the case, it is the difference is evident from the fact that those animals are the most intelligent whose brains most resemble in shape and character

that of the human being. This is well illustrated in the case of the monkey, the most intelligent and sagacious of all animals, the well known correspondence in general physical conformation of the brain between it and man being quite evident.

That the brain is the medium of the mind is universally admitted, and from experiments made, and facts established, the particular portion of the cerebral substance which gives rise to Ideation and Volition has been definitely ascertained.

It will be necessary for us briefly to notice the functions of the Cerebellum and Cerebrum before proceeding to some general considerations of the Mind, and its peculiar connection with, and control over, the body.

The Cerebellum

The cerebellum occupies the lower and back part of the cranial box, and is considered principally as the organ which influences the animal nature — the organ of co-ordination of the muscular movements of the body. Animals and fowls in which portions of cerebellum have been removed, have shown by their actions that the cerebellum comprised no part of the intellectual or sensitive apparatus, but is the source of voluntary motion. Removal of a portion of cerebellum has shown [illegible] and want of [illegible] in muscular movements; and the irregularity and violence of action is always proportionate to the amount of brain substance removed. If all the cerebellum is removed the animal loses entirely the power of standing, walking, or preserving equilibrium, while at the same time retaining the [illegible] of

hearing & seeing, and the invention of [illegible], [illegible] by its effects to avoid [illegible] which [illegible] to attend it.

Some have supposed a direct & primary connection to exist between the cerebellum and the sexual instincts. Loss of sexual passion was asserted as a consequence of injury to the cerebellum by blows or otherwise; in other cases though the desire still remained, the capability of gratifying the desire has been lost. Cases have been reported in which disease of the cerebellum was [illegible] attended with constant erection of penis, & frequent seminal emissions. It is very doubtful if these functions and voluptuous passions are in any way dependent on the cerebellum, but it is a fact of history that Aaron Burr, perhaps the most notoriously licentious man who ever lived, had his [illegible] [illegible] of the largest [illegible] and most [illegible]

intents) had a cerebellum so largely developed as almost to constitute a deformity. This may or may not, have had something to do with his ungovernable passions.

The Cerebrum

The functions of the Cerebrum, reasoning by "Exclusion," are those of "the organ by which the "Mind receives sensations which it contains and manifests itself in emotions and feelings, and in the faculties of judgment, memory, reflection and imagination." It is the organ through which Mind acts in those operations which have connection & relation to external and sensible things; it may have higher faculties by which it may attain to knowledge of things above the senses, such as the sciences and mathematics, which no doubt, do not depend for their exercise on impressions conveyed to the brain from external objects.

That the ~~brain~~ Cerebrum is really the organ of the Mind is proved conclusively by the following facts: 1st, Severe concussion or sudden pressure, as Apoplexy, will deprive a man of all power of exercising mental faculties; 2d. No other portion of the body, and especially of the nervous system, bears such a corresponding proportion to the development of the intellect; 3d. the size of the Cerebrum bears a close relation to the intellectual capacity of the individual.

The seat of Ideation, Reason and Volition, is the gray matter of the convolutions, their number, extent and depth of the sulci bearing a close relation to the intellectual power of the individual as manifested in the increasing complexity of arrangement as we ascend from the lower mammalia to man. Again, in the infant, devoid of intellect, the convolutions are simple, the undu-

lutions few, and such limited in depth, at 4 weeks the convolutions begin to grow rapidly, and according to their growth does the intellectual power of the child expand and develop, until at 7 years the brain has doubled in size, and exerts a controlling influence over the actions of the individual.

We do not believe that intellectual capacity depends exclusively on the size of the Brain. Were size the only requisite for great intellect, the elephant would far exceed man in wisdom. It many [illegible] much depends on quality and chemical constitution as upon quantity.

How Does Mind Act Through the Brain?

How can we explain the facts which prove the brain to be the organ of the Mind? The easiest way to [illegible] is to imagine an [illegible] intelligent principle, which does not of necessity depend for its existence on brain, but which is [illegible]

of external manifestation, or of receiving knowledge of external things, except through the medium of the Brain. This "immaterial principle," this invisible power, the Mind, may not itself become diseased or changed in its character; but its outward manifestations may be hindered, or ~~perverted~~ perverted by a diseased condition of the medium through which it acts.

It is not reasonable to suppose that the cerebral hemispheres are single organs of which all parts are equally appropriate for each of the mental faculties. It is more than probable that each faculty has a special portion of brain appropriated to it as its own organ or medium. In all other compound organs and systems each part has a special function; different mental functions are manifested in different persons in different degrees. In persons who are deranged it seldom that

are the mental faculties so equally affected. In many instances only one faculty is deranged, the rest acting in a normal manner.

Sexuality of Mind

Sexual differences in the physical conformation of the body do not constitute the only distinction between the sexes. Sex is as inherent in Mind as it is in form. It is the Mind which gives to the sexes those distinctive and characteristic traits of character which make each attractive to the other. Were the minds of men and women alike, there could be no harmonious union of the sexes; for it is a universal law, of the moral and natural world, as well as of the inorganic, that "Opposites attract," and "Like bodies repel each other." Men do not love masculine women; women do not love effeminate men.

This difference in kind becomes apparent as soon as the intellectual faculties begin to exert a controlling influence over the body. Before the convolutions of the brain become developed, the sex can only be determined by referring to the pelvic extremity of the trunk. In a very few years, though boys and girls may be dressed alike, the sex can be distinguished by the mental traits manifested during conversation and play.

Infant boys and infant girls, when devoid of mental development, are pleased with the same toy, "tickled with the same straw." Before long the boy begins to show the manhood of his nature. He throws away the doll in scorn, and beats the martial reveille on the drum; he leaves the "play house" with its broken china to

his sister, and mounting astride the broom-stick gallops to imaginary fields of battle. The girl eschews the rude sports of boyhood, and lavishes maternal affection on her doll.

But it is in adult life especially that the difference is rendered most apparent. Says William Lecky: "Intellectually, an inferiority of the female sex can hardly be denied, when we remember how almost exclusively the foremost places in every department of Science, literature and art have been occupied by men; how infinitesimally small the number of women who have shown in any form the highest order of genius. How completely women have failed in attaining the first position even in music and painting, for the cultivation of which

their circumstances would seem the most favorable. It is as impossible to find a female Handel or Raphael as a female Shakespeare or Newton. They judge rather by intuitive perceptions than by deliberate reasoning or past experience. They are superior to men in nimbleness and rapidity of thought, and in the gift of tact, and the power of seizing rapidly and interpreting the finer inflexions of feeling, and have therefore attained eminence as conversationalists, as letter-writers and as novelists. They are little capable of impartiality or doubt; their thinking is chiefly a mode of feeling; though generous in their acts, they are rarely so in their opinions; they persuade rather than

emotion.

The size and power of the brain is less in woman than in man, but while this is true, she has a larger intellectual and more powerful reasoning faculties. The sensibility of woman is excessive, and she is affected by emotions which in man are so feeble as scarcely to excite attention. They are affected by every impression, and consequently undergo new Emotions which are often inconsistent, following each other so rapidly that they sometimes overlap and though alternated.

Marvels of Mind

Instances of remarkable memory have been given from time to time, and instinct can undoubtedly be cultivated to a

almost incredible extent. Avicennes repeated the whole of the Koran at [illegible] years of age. Jedediah Buxton could multiply 39 figures without using paper. Zerah Colburn, a mathematical prodigy of our own country, and of modern date, could tell the number of seconds in 58 years, in less time than the question could be written on paper. Lord Macauley had a wonderfully retentive memory, and by simply reading a page over once, could repeat the contents by heart, [illegible]ation.

Influence of Mind over Body.

The careful study of this subject is practically important to the Physician, who is daily brought into contact with striking

examples of the reciprocal connection existing between Mind and matter.

The mind can strengthen or weaken the body. The man with a gun on his shoulder can walk twice as far without becoming fatigued as another can who has nothing to engage his attention or excite his hopes. Almost incredible feats of strength have been performed while under the influence of mental emotions or excitement. On the other hand, great joy, grief or fright weaken and destroy bodily power; the face turns pale, the knees tremble and the individual may fall to the ground completely exhausted. Experiments have shown that a man is really sick the instant you make him believe that he is. Emotions of the matter have

so altered altered the character of the milk that the sucking infant has been instantly killed.

One of the chief effects of great and continued action of the brain is a more or less weakening of all the organs dependent on it, the bowels become constipated, the stomach debilitated. Hence many men are dyspeptics. It is a truthful axiom; "He who thinks the most digests the worst," and visa versa. The catamenia have been suspended in young girls who have been disappointed in love.

One of the most striking proofs of the influence of mind over matter is found in the effects of mental emotions upon the foetus in Utero; this influence being transmitted through the maternal blood + [illegible] system, [illegible]

impressed upon the body, or upon the mind of an infant not yet conscious of its own existence.

The time will come when physicians will rely more on moral than on medicinal treatment for certain forms of disease. Psychology is not only interesting, but of importance practically. Let the subject receive careful and earnest attention, for the Doctor is called upon to minister to diseased minds as well as to diseased bodies.

Finis.

J. E. Elderdice
15 McHenry Street, 1877.